SEOUL AI STARTUP 100

SEOUL AI HUB 2023

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Seoul AI Hub Managing Director
Ham Jong min

"Seoul AI Hub is expected to play a key role in the startup ecosystem of Seoul, which aims to become one of the top five startup cities in the world. In order to create a hub for AI talent and companies in Yangjae, Seoul Metropolitan Government opened a specialized institution for nurturing technology startups in the field of artificial intelligence in December 2017, under the name "Yangjae R&D Innovation Hub".

This place, which has produced many AI startups in the past five years, has changed its name to "Seoul AI Hub" in 2023 and is preparing for a new leap forward. We met with Ham Jong min, the director of Seoul AI Hub, to hear more about it. [Editor's note]"

Seoul AI Hub Managing Director Ham Jong min

"Seoul AI Hub Aims to Create a Sustainable Ecosystem for AI Startups"

What is the strength of Seoul AI Hub in the field of artificial intelligence in Korea?

Since its establishment in December 2017 by the Seoul Metropolitan Government, the Seoul AI Hub has nurtured over 100 resident companies, 110 graduate companies, and more than 163 membership companies. The total accumulated market capitalization of these companies is over 2 trillion won(KRW). So far, it has won 14 awards, including the CES Innovation Award, and its graduated company Crowdworks was listed on the KOSDAQ.

Seoul AI Hub plays a leading role in the development of the AI industry in Korea. It provides various support to AI startups, such as technical problem solving, overseas expansion, and management support. It also has a regional advantage of being close to the IT industry's core area, Gangnam, and being surrounded by major IT companies' research institutes, making it easy to communicate with related institutions and companies.

As a result of these advantages, more and more startups are hoping to move in, and it has become a must-pass place for early-stage startups that are developing businesses with artificial intelligence as their main theme. We believe that many unicorns will be born from businesses based on artificial intelligence at this place.

Seoul AI Hub operates various programs. What are the distinguishing factors of these programs?

To nurture startups, various programs are needed, such as investment, management support, education, technical problem solving, talent supply, overseas expansion, etc.

There are already institutions in Seoul that specialize in investment, education, and overseas expansion, and we operate programs in a way that creates synergy with these institutions.

Seoul AI Hub itself focuses on programs such as "technical problem solving," "global technology collaboration," "open innovation," "in-depth education," and "ultra-early stage startup support."

For example, the "technical problem solving" program was created to help startups overcome or find clues to the problems they encounter while running a startup based on the new technology of AI.

We develop and operate programs in the form of supporting problem solving through overseas research institutions or matching domestic researchers who are suitable for solving problems.

What are the future plans for Seoul AI Hub?

The goal is to create a sustainable structure for the AI startup ecosystem. Seoul AI Hub's target of support is ideally early-stage or pre-startups. Many of these people start startups by working on second projects while in college, graduate school, or working. We plan to continue to create an environment and support for these people to be able to easily form a team and start a startup.

Solving business problems for not only startups but also medium-sized enterprises is also an important part. We want to create an environment where the AI capabilities of schools and research institutes can be well matched with startups and medium-sized enterprises in terms of technology.

It is also important to create a structure in which large enterprises, medium-sized enterprises, government agencies, and local governments can be connected and recycled through open innovation. Although the expression "building

an AI ecosystem" may be grandiose, we are actually discussing such a recycling structure with the Seoul Metropolitan Government.

Global expansion and cooperation are also essential. There are similar organizations to Seoul AI Hub in Europe, the United States, and Canada. We plan to promote support projects such as helping startups to expand overseas through networking with these organizations and linking the technological capabilities of overseas research institutes to startups.

If you have anything to say to those who are starting a startup, what would it be?

If you have an idea, I would like to tell you to meet 10 customers who have the problem that the idea will solve and clearly specify how the problem is solved. I think that is the first step to a convincing business plan. Even if it is a problem you are experiencing, it may not be common, and the idea may seem plausible, but it may be too abstract. Therefore, it is necessary to have a process of concretizing the idea by discussing it together.

And build the necessary team. Anyone can come up with a good idea, but the start of a startup is to create a business model that solves

the problems of the market based on that idea and to build a team with people who can make it a reality, even in part.

Nowadays, it is an era where AI cannot be excluded from any business. In other words, a team needs people who can plan, utilize, and develop AI, as well as people or resources who can help. Seoul AI Hub is a place where such people and resources gather. I hope you will use it well to create a successful business.

About Seoul AI Hub

Seoul AI Hub:
The Hub of the Global AI
Innovation Ecosystem

Seoul AI Hub is a specialized hub for artificial intelligence that brings together AI talent and companies. It was established by the Seoul Metropolitan Government in Yangjae in 2017. Since April 2023, it has been operated by a consortium of the Seoul National University Industry-University Cooperation Foundation, the Electronics and Telecommunications Research Institute (ETRI). The two institutions are nurturing technology-driven AI companies and cultivating AI talent based on their technical resources, research capabilities, and open innovation research culture.

Seoul AI Hub operates a variety of support spaces, including office space, meeting rooms, and studios, in the KFTA(Korean Federation of Teachers' Associations) Building, the Hi-brand, and the Heekyung Building. It also operates an AI education center. In the first half of 2024, it plans to complete the AI support center.

About the Facilities

Seoul AI Hub KFTA

Set up December, 2017
Address KFTA(Korean Federation of Teachers' Associations), 114, Taebong-ro, Seocho-gu, Seoul
Facilities
1F Open lounge called "AI Playground", Spaces for AI Yangjae Hub's partner companies
5F Open workspaces for AI startups, Meeting rooms, Premium lounge, Management offices, Server room, Seoul AI Hub STUDIO
6F Independent & Open workspaces for AI startups, Meeting rooms
8F Independent & Open workspaces for AI startups, Lounge

Seoul AI Hub Hi Brand

Set up June, 2019
Address
16, Maeheon-ro, Seocho-gu, Seoul
Facilities
12F Independent workspaces for AI startups, Lounge, Server room, Meeting rooms
13F Independent & Open workspaces for AI startups, Management offices, Meeting rooms
14F ndependent & Open workspaces for AI startups, Meeting rooms

Seoul AI Hub HeeKyung Building

Set up 2020, 2021

Address

B·C Bldg 47, Maeheon-ro 8-gil, Seocho-gu, Seoul

D·E Bldg 39, Maeheon-ro 8-gil, Seocho-gu, Seoul

F Bldg 32, Maeheon-ro 16-gil, Seocho-gu, Seoul

Facilities

B·C Bldg Independent & Open workspaces for AI startups, Training rooms, Meeting rooms, Lounge, Server room

D·E Bldg Independent & Open workspaces for AI startups, Co-working space, Lounge

F Bldg Independent & Open workspaces for AI startups, Co-working space, Lounge, Multipurpose room

AI Education Center

Set up June, 2020

Address 108, Taebong-ro, Seocho-gu, Seoul

Facilities

B1 seminar room

1F Large/Small lecture halls, Management offices, Lounge

2F Large/Small lecture halls, Big Data Branch Campus, Lounge

Seoul AI Hub Main Center

Set up

Scheduled for completion in the first half of 2024

Address

108, Taebong-ro, Seocho-gu, Seoul

Facilities

B1 ~ 7F

Common Networking Space, Training rooms, AI Professional graduate school

**AI Startup
Development Support**

We support artificial intelligence startups to grow into global unicorns by strengthening their business capabilities, connecting them to investment capital, and promoting marketing.

Target	Program	Description
Pre and Early-stage AI Startups	Recruitment of new tenant companies and membership companies	Recruitment and selection of promising AI startups (or pre-startups)
	Acceleration and seed investment support	Collaborating with professional accelerators to identify and support growth-potential early-stage AI startups through acceleration and seed investment
AI Startups Under Seoul's Startup Support Facilities	High-performance computing infrastructure support (Cloud-based)	Providing cloud computing services to support R&D of AI-specialized companies affiliated with Seoul startup support facilities
Seoul AI Hub Tenant Companies and Membership Companies	Expert mentoring support	Providing expert advice in the areas needed to resolve technical and managerial issues of affiliated companies
	Support for the growth of professional institutions	To promote the growth of affiliated companies through partnerships with investment institutions, law firms, patent firms, accounting firms, and related associations that have expertise.
	Networking day	To continuously promote networking events to facilitate smooth communication and cooperation among affiliated companies.
	Investor matching support	To promote investor matching, 1:1 mentoring, and demo days to support the sustainable growth of affiliated companies
	(Support for technology commercialization	Strengthening the technological capabilities of AI companies through matching of AI source/base technologies
	Open innovation and testbed	Providing support to secure business opportunities and references with promising startups that have new technologies and ideas through collaboration with large and medium-sized enterprises
	Support for domestic and international exhibitions	Supporting participation in domestic and international exhibitions to promote and open up new markets for affiliated companies
	Support for domestic and international joint research	Matching domestic and international researchers and supporting joint research to solve problems faced by affiliated companies and to enhance their technologies
Seoul AI Hub Tenant Companies	High-performance computing infrastructure support (Cloud-based)	Providing cloud computing resources and IDC co-location services to support research and development of tenant companies
	Support for the promotion of tenant companies	Providing a continuous publicity channel for tenant companies, such as producing promotional videos and writing feature articles

Training AI Professionals

We offer customized AI education that meets the needs of each target group to cultivate future AI professionals.

Category	Program	Target	Description
Basic AI Course	AI Smart Academy	Seoul citizens, including ordinary people and non-majors who are interested in artificial intelligence	AI basic knowledge and principles education for the general public and non-majors who are interested in AI
	Data Labeling Course	middle-aged people who are interested in artificial intelligence	Enhance practical skills through AI and data labeling education for middle-aged people
	AI Data Beginning Course	Artificial intelligence related employees and non-majors	Conduct basic statistics education, data processing/analysis/processing learning, project execution, etc. to strengthen data utilization and interpretation capabilities
AI SW Specialized Course	AI+X Fusion Education	Developers, planners, and designers with innovative ideas	Conduct collaborative and fusion projects that apply AI technology to various industries to create technological innovation and new products and services
	AI Practical Skills Education	Artificial intelligence-related undergraduate and graduate students and job seekers	Cultivating practical developers through AI theory learning and practical project practice (to be linked with AI talent recruitment fair)
Cultivating Professional Talent	AI Talent Recruitment Fair	Job seekers and hiring companies among graduates of the 'Seoul AI Hub' education program	Supporting employment linkage through job interviews between job seekers and hiring companies for graduates of Seoul AI Hub education programs
	AI Enterprise Internship Program	Job seekers among excellent graduates of the Seoul AI Hub education program	Providing internship opportunities for excellent graduates of Seoul AI Hub education programs at member companies (utilizing and connecting with Seoul New Deal Job Creation)
Operating a Big-data Campus	Operating a Big-data Campus	Seoul AI Hub members, Seoul citizens	Operating a big data campus (Seoul AI Hub branch) to promote AI technology development and business opportunities through big data sharing and opening

Activation of Domestic and International Networks

We are creating a networking platform where domestic and international artificial intelligence experts, resident companies, and the industry-academia-research-government collaboration can communicate and interact, in order to activate the artificial intelligence industry ecosystem.

Category	Program	Target	Description
Activation of Domestic Artificial Intelligence Networks	Co-working projects for resident companies	A company that has AI technology that can solve Seoul city's public problems	Support for the commercialization budget for technology development and product development to define Seoul city's urban problems and propose solutions through the use of AI technology. • Seoul AI Hub tenant companies + Consortium of tenant companies • Seoul AI Hub tenant companies + Consortium of companies, universities, and research institutes in Seoul
	AI conference	Universities, companies, research institutes, and investment institutions, etc.	Provide opportunities for Seoul AI Hub tenant companies to promote and build organic networks with other companies, investors, universities, etc. through partnership or joint participation in AI-related online/offline conferences.
	Tech sharing sessions for artificial intelligence	Startups interested in the AI industry, relevant institution officials, etc.	Host seminars on research and technology trends for startups and relevant institution officials interested in the AI industry.
Activation of Global Networks	Support for global market entry	Seoul AI Hub tenant companies, etc.	Support demand generation and overseas company establishment to help companies that have achieved some results in the domestic market and provide products and services suitable for overseas market entry to overcome the difficulties of opening overseas markets.
	Strengthening of global networks and cooperation	Seoul AI Hub tenant companies, etc.	Strengthen the network and exchange cooperation with global technology leaders to support the growth of AI-specialized startups in Seoul AI Hub and build networking with global companies.

Visual
Intelligence
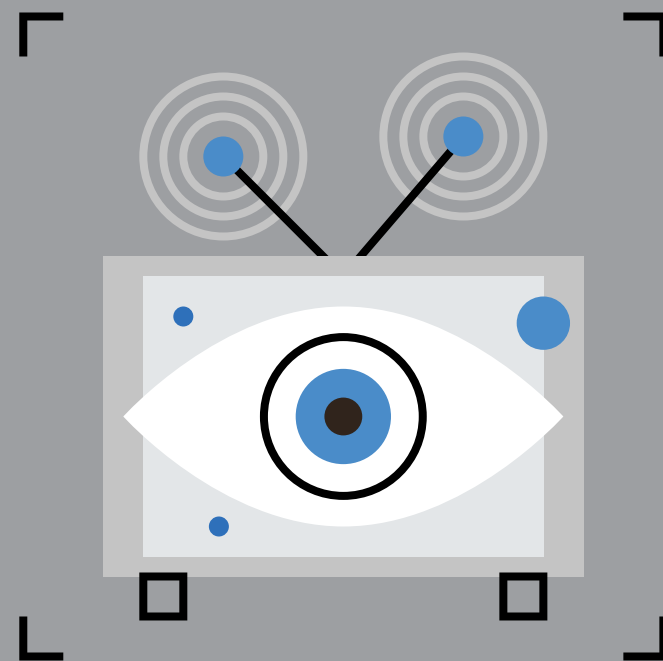
ARCHIDRAW

Company Archidraw
CEO Lee Joo-seong
Key Product/Service
Mobile 3D space scanner
"Archisketch"
Business Area Visual Intelligence
Website archisketch.com

클라우드 고화질 렌더링 솔루션

설치형 렌더링 방식(스케치업, 오토케드 등) 은 5시간 이상 소요되는 것 대비, 아키스케치에서는 클라우드에서 약 1-2분안에 제작이 가능합니다. CPU와 GPU의 병렬처리로 저연산 고퀄리티 렌더링을 수 초(sec)안에 컨텐츠를 만들수 있습니다.

아키스케치 에디터에서 생성한 16K 렌더링 이미지

동일한 공간에 다양한 컨셉 인테리어 스타일을 적용한 고화질 렌더링 사례

Archisketch's high-quality rendering solutions(Archidraw)

Archidraw: "With Archisketch, Create Your Own 3D Interior in a Snap"

Archidraw is a virtual interior platform company founded in November 2014. The company has two main products: the Archisketch mobile 3D space scanner and the Seasoop online 3D interior platform. Archidraw has raised a total of 8600 million won(KRW) in investment to date.

Archisketch provides a variety of solutions, including AI design solutions (modeling design), high-quality rendering solutions (modeling visualization), design data production integration solutions (modeling manufacturing & production), and content digital asset solutions (modeling management & analysis).

First, the AI design solution supports the extraction and use of unlimited customer interior case studies, classified by application space and style. The high-quality rendering solution supports the production of real-time 16K rendering images based on the cloud using high-performance computing power.

The design data production integration solution implements an automated manufacturing process that increases productivity and maintains consistent quality over manual work by using 3D design data. The content digital asset solution stores and analyzes 3D digital assets as production-ready data, including design and engineering drawings, in a digital twin format (modeling production, modeling integration, simulation, collaboration).

Archisketch's Competitive Edge

Archisketch's differentiating point is that it provides 3D design software that covers the areas of AI design, visualization, production, and digital asset management, as a cloud-based service. Therefore, it can be used directly on the web using its own engine without the need for a separate installation program, and high-quality 16K interior renders can be received in a short period of time. The results can be viewed in various versions, such as first-person view, top view, 720 view, and panorama view.

Archidraw's Achievements and Future

Archisketch's solutions are provided as a virtual self-interior service in the 3D interior community of Ohouse, and as a 3D and photo rendering for LG Object Collection products and B2B solutions.

It has also been used to create a design showroom for the Lotte Home Shopping event, and to create solutions for online and offline interior consulting at Innometsa and Wonderaum. In addition, it has been applied to the production of furniture using the digital twin method at the Fursys Group (Illoom, Fursys, Desker, and Sidiz), and has been provided as an AR solution for the production of Duoback furniture.

In the construction field, it was provided as a virtual self-interior service to residents in the Samsung Raemian Apartment new resident experience project, and was also used to create and provide content for new model houses in Japan with Enshu Real Estate. Archidraw plans to expand its business area from supplying to interior and large furniture brands to interior and construction companies, furniture manufacturers, brands, and distribution companies, including small and medium-sized businesses and individuals.

귀걸이,목걸이

안경

신발

그 외 모자, 시계, 의료보조기구 등 신체 착용이 가능한 제품에 다양하게 확장 가능하며 제품을 입체적으로 확인하는 **360**도 뷰어도 함께 제공 가능

옷
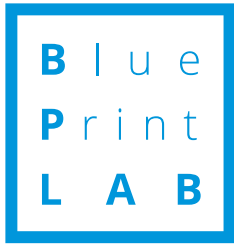
The fitting functionalities of the vision AI-based AR virtual fitting solution 'Wear'(BluePrintLAB)

B l u e
P r i n t
L A B

BluePrintLAB's 'Wear': Try on Anything, Anywhere with Smartphones

BluePrintLAB's 'Wear' is a service that allows users to virtually try on products by adding AR effects to a human or object recognized by vision AI. Wear uses a webcam or smartphone camera to recognize images, and then uses AR technology to virtually try on a virtual product in real time. Representatively, you can virtually try on accessories such as glasses and jewelry.

The AI recognition technology and 3D processing technology used in Wear can be used for all images, not just humans, so it can be used in a variety of areas, such as AR virtual fitting solutions, 3D virtual spaces and avatar creation, and smart factories.

Wear's Competitive Edge
Wear provides real-time virtual fitting, not static images, so you can experience realistic virtual fitting like looking in a mirror. This is because BluePrintLAB has developed its own recognition model.

This recognition model is lightweight compared to existing models. Existing recognition models only worked on servers with high hardware performance or high-performance cloud environments. BluePrintLAB has made the recognition model lighter so that it can also work on mobile devices such as smartphones and tablets.

By applying web-based technology, users can use the product anytime, anywhere without environmental constraints as long as they are connected to the internet. Currently, BluePrintLAB provides AR virtual fitting solutions for glasses, jewelry solutions for earrings and necklaces, and AR virtual nail solutions.

BluePrintLAB's Achievements and Future
BluePrintLAB was selected for the TIPS (Technology Startup Incubator Program) in 2019, which recognized its technology. It has also been recognized for its technology overseas by being selected for programs such as 'Facebook Accelerator Seoul' and 'NVIDIA Inception Program'.

In March 2021, BluePrintLAB was selected as a tenant company of Seoul AI Hub and relocated its headquarters to Yangjae. It is focusing on promoting corporate growth, cultivating professional manpower, and strengthening R&D capabilities by utilizing various programs and networks provided by Seoul AI Hub.

BluePrintLAB is preparing a service that automatically creates images and models for product promotion using generative AI. It plans to distribute the service to sellers who operate online shopping malls and their own malls.

DeepBuild

'Pinterior' web page(Deepbuild)

Deepbuild, Reduces Time and Cost in Interior Design with 'Pinterior' and 'Pindata'

Established in January 2021, Deepbuild is a company that provides intermediary services for commercial interior design and builds and sells commercial real estate space data, based on AI and LiDAR technology.

Deepbuild's service, Pinterior, is a platform that provides intermediary interior design services based on indoor space measurements using LiDAR technology and user data analysis based on AI. Pindata is a platform for indoor space information that systematically reconstructs the shapes of buildings' interiors and exteriors into 3D models using LiDAR technology.

Deepbuild recommends interior design images to users such as entrepreneurs preparing to open stores in various industries through the aforementioned services. Furthermore, it utilizes AI analysis of data to convey users' design needs to interior design companies.

Deepbuild's Competitive Edge

Deepbuild provides high-end interior services based on on-site consulting to consumers, utilizing AI and LiDAR technology. It also offers additional high-accuracy 3D spatial information to businesses, giving it a price advantage over existing interior platforms.

Traditionally, going through numerous meetings with various interior companies and creating blueprints was a cumbersome process for interior construction. Deepbuild introduced a LiDAR-based measuring system to improve this. By collecting data about indoor spaces and providing it to users in a form that can be used by interior companies, it significantly reduces the time and cost of communication with interior companies.

Deepbuild's Achievements and Future

As of October 2023, Deepbuild has secured partnerships with 357 companies. Deepbuild aims to provide users with opportunities to choose satisfactory designs and offer businesses an environment for efficient communication through the analysis of users' design needs. Users will be able to find designs they have imagined abstractly through Pinterior's AI recommendation service.

In the future, Deepbuild aims to sell space data that can be utilized in smart city industries and metaverses, building upon its existing services. Additionally, the company aspires to grow beyond an interior intermediary platform to become a space big data platform.

FASHIONADE

Company Fashionade
CEO Baek Ha-jeong
Key Product/Service
Virtual fitting solution 'StyleAI'
Business Area Visual Intelligence
Website styleai.kr

StyleAI: The Fastest way to Try on Clothes Virtually

The StyleAI app can generate any race, age, face, and hair style you want(Fashionade)

Fashionade is a startup that provides a virtual fitting solution called 'StyleAI' that can create realistic fashion models in minutes. The company was founded in June 2020 and raised 700 million won in seed funding.

Fashionade's 'StyleAI' is a service that creates fitting model photos from product photos based on AI. Online sellers can use StyleAI to create model photos without recruiting models.

StyleAI uses model wear data to analyze the length and fit of the product to create model photos. It also offers a 'My Model' service that allows you to create models with the desired appearance. In addition, it offers services such as 3D design that can be freely created by race, age, face, and hair, and AI design.

Solving Fitting Model Worries with StyleAI

Existing virtual fitting services use 3D modeling to put clothes on avatars. On the other hand, StyleAI can provide virtual fitting content 5 times faster than existing ones using product image information. In particular, it is a major difference that it provides information about products that suit consumers by combining fashion trend data and styling methods through algorithm experts.

StyleAI's service differentiations include: ▲Model creation considering the fit of the product ▲Model creation without worrying about portrait rights/copyrights ▲Measuring the impact of models on sales and managing ROAS. In order to provide these services, the company has registered a patent for the AI human

generation system.

StyleAI can create models in a variety of ways, so it can be created to match the nature of the shopping mall and the characteristics of the main consumers. For example, if a shopping mall that operates for American consumers, the model can be changed to a Westerner. In fact, shopping malls that have used this solution have increased their advertising return on investment (ROAS) by up to 33%.

Fashionade's Achievements and Future

Fashionade was selected as a supplier for the 'AI Voucher Support Project' led by the NIPA(National IT Industry Promotion Agency) in 2022. In March 2023, it was selected for TIPS(Technology Startup Incubation Program) and established a corporate

research institute at Seoul AI Hub at the same time.

Fashionade is focusing on promoting corporate growth, cultivating professional manpower, and strengthening R&D capabilities by utilizing various programs and networks provided by Seoul AI Hub. Fashionade is aiming to provide differentiated AI-generated services by improving the quality of its services, centered on the virtual fitting model image/video generation solution, in the fashion/accessories/beauty field.

GOOSE LABS

Company GOOSE LABS
CEO Lee Seo-hee
Key Product/Service FIVA
Business Area Visual Intelligence
Website gooselabs.io

GOOSE LABS Offers 'FIVA' for Motivational Home Training in the Metaverse

Founded in November 2021, GOOSE LABS operates the Metaverse home training (homet) app 'FIVA.' It utilizes motion recognition AI that detects users' movements through a camera and replicates them in avatars.

'FIVA' by GOOSE LABS is a Metaverse homet app that allows people to exercise together in real-time through motion-recognition avatars. It offers a concept similar to attending group Pilates or Zumba classes in the Metaverse, with avatars moving just like the users.

FIVA turns the potentially boring or unmotivating experience of homet into a fun and energetic adventure. Users of FIVA can watch each other exercising through their avatars and encourage and support each other via real-time voice chat.

FIVA utilizes motion recognition AI that detects users' movements

through a camera and reflects them in avatars. No additional sensors or devices are required, just a smartphone. The camera footage is not recorded or transmitted.

GOOSE LABS's Competitive Edge

A significant advantage is the convenience and affordability of recognizing user movements without additional devices or sensors. Previously, motion-activated exercise services and games required the purchase of costly equipment like console game systems or virtual reality (VR) headsets, involving initial costs of several hundred thousand won.

Moreover, there was the hassle of maintaining and setting up every time to use it, along with the disadvantage of occupying space. FIVA requires only a smartphone to use, so there are no

upfront costs, and users just need to open the app to get started.

GOOSE LABS's Achievements and Future

Currently, GOOSE LABS has registered one patent related to FIVA and filed another. In September 2023, they released an open beta of the iOS app and are now operating live classes. They plan to participate in the CES exhibition in January 2024.

GOOSE LABS continues to develop their services to provide customers with a positive exercise experience through ongoing service stabilization and operations. They plan to expand their user base and increase use cases through B2B collaborations in the future.

아바타로 "함께" 운동하는 메타버스, FIVA

동작인식 아바타

여러분 힘냅시다! 조금만 더 하면 끝이에요! 🔥

00:17　16:07

이두　피바　치킨

으아아

실시간 음성채팅

GOOSE LABS operates the Metaverse home training (homet) app 'FIVA' (GOOSE LABS)

iTeXSolution™

Company iTeXSolution
CEO Yoo Wang-sang
Key Product/Service
Education content digitalizing
service 'Qn.AI'
Business Area Visual Intelligence
Website itexsolution.co.kr

교육 콘텐츠의 완전한 디지털 전환!

Qn.AI

한번에 텍스트, 수식, 그림, 표, 글박스를 인식하는
세계 최초, **수학 문항 Full-Text OCR**

https://qnai.io

스냅샷? PDF? 수식?
똑똑한 Qn.AI는 모두 가능합니다!

(주)아이텍스솔루션
iTeXSolution™

Education content digitalizing service 'Qn.AI'.(iTeXSolution)

iTeXSolution, Education Content OCR Solution 'Qn.AI' Accurately Recognizing Formulas and Graphs

Established in September 2014, iTeXSolution is a company that develops Optical Character Recognition (OCR) solutions for educational content using AI deep learning technology and holds related technology patents. It particularly stands out for its ability to quickly and accurately recognize challenging elements in math education, such as formulas and graphs.

The core competitive factor of iTeXSolution is its AI-based 'Qn.AI' OCR solution. Qn.AI accurately recognizes information entered by handwriting and converts the recognized data into an editable format.

In particular, Qn.AI is a full-text OCR solution that excels in math content. It offers functionality to convert handwriting made with fingers or smart pens on personal smart devices into web text format.

Additionally, it provides a GUI (Graphical User Interface) editor for immediate editing of recognized formulas and text. It recognizes snapshots, scanned math textbooks, PDF documents, and even damaged documents, including scribbles. It allows automatic correction of math graphs as needed by the user. The recognized results can be converted into Arae-A Hangul or Word documents.

iTeXSolution's Competitive Edge

Qn.AI is considered a technology that will gain more attention in a non-face-to-face society, serving as both a communication and remote learning platform.

Qn.AI's math formula handwriting recognition offers a list of candidate results alongside the initial prediction, allowing quick correction of misread characters. If there is an error in the formula structure, it can be corrected with an eraser tool and re-recognized.

The user interface has been improved by integrating the previously separate input and result screens, allowing input, results, and edits on a single screen.

iTeXSolution's Achievements and Future

Qn.AI by iTeXSolution has been adopted as a handwritten input solution for math subjective questions in the CBT-based academic achievement assessment by the Korea Institute of Curriculum & Evaluation(KICE)

It is used by students across all primary, middle, and high schools nationwide. As a full-text OCR solution, it leads in terms of content digital conversion technology usage in Korea.

iTeXSolution plans to combine its Qn.AI educational content OCR technology with LLM like ChatGPT. With this, iTeXSolution is accelerating the development of a true AI tutor system that can ask questions it doesn't know just by taking a snapshot, and get the best solution and answer in real time.

Moreover, it is collaborating with MegaStudy Education's online lecturers and content research institutes to construct quality learning data for specialized LLM prompt engineering research and model fine-tuning in the education field. This collaboration aims to promote balanced growth in both technology and content.

Company Litiv
CEO Kim Ji-hoon
Key Product/Service
Sports Video Analysis and Sharing
Platform 'Bastat'
Business Area Visual Intelligence
Website litiv.net

**Litiv, Provides Pro-Level Data
Analysis Services with
a Single App**

Sports Video Analysis and Sharing Platform 'Bastat'(Litiv)

Litiv's Bastat is a combination of the words 'Basketball' and 'Stat'(sports statistics). It is a platform service that allows users to record, analyze, and share sports data using AI technology.

Data is very important in the field of sports. Data analysis results can be used to analyze areas of improvement, which can play a decisive role in improving game performance. However, existing data analysis solutions require specialized equipment or personnel, making them expensive and difficult to access.

The Bastat service allows users to easily record, analyze, and share their game play with just a smartphone-recorded game video without specialized equipment. This means that anyone can use sports data.

Bastat's Competitive Edge

Litiv has the technology to accurately detect the ball, which is often filmed very small in game footage, and to accurately track players even in scenes where players are blocking each other, due to the nature of team sports where competition is frequent among players. Litiv has received patents for these core technologies in Korea and the United States.

The Bastat service is easy and affordable for anyone to use. Users can upload game footage they have participated in with a smartphone or a basic action camera through the Bastat application, and then use a variety of sports data analysis video functions. You can use the app's automatic feature to recommend important game segments, and you can also edit highlight segments yourself.
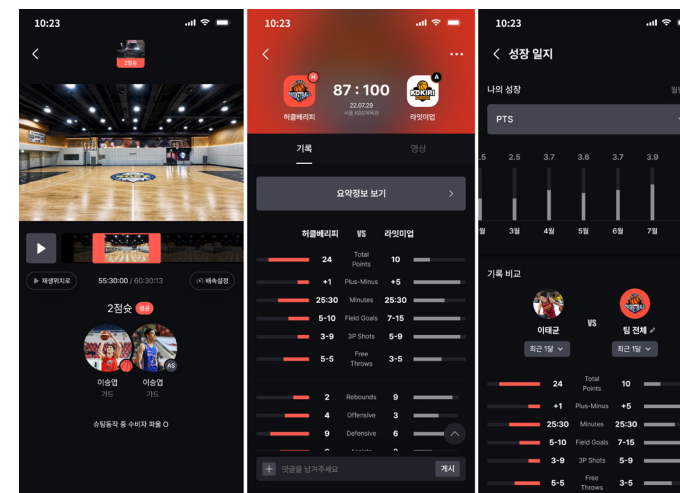
In addition, it is possible to record box scores at the same level as the NBA, including shooting, assists, rebounds, steals, and fouls, and to analyze individual player statistics and team statistics.

Litiv's Achievements and Future

The official version of the service was launched on the Google and Apple stores in September 2023, and the Bastat service was introduced to the Seoul National University IB League in the second half of 2023, and is receiving a good response. We are also preparing a service that provides indoor gymnasiums with IP cameras to provide gymnasium-using amateur teams with game video shooting, uploading, and automatic extraction of highlight scenes. To this end, we have partnered with the KT business unit.

We are currently conducting a POC (proof of concept) at the Busan Infinite Gymnasium Saha branch, where we have introduced a pilot service. We have also signed a memorandum of understanding with the Ho Chi Minh City Basketball Federation in Vietnam, providing a bridgehead for our entry into Southeast Asia.

Litiv plans to first increase the number of affiliated gyms in the domestic market to provide an environment where amateur basketball teams can easily share highlight videos of their game scenes on SNS.

![Meraker logo — Deep dive into tech with passion.]

Meraker's VFX 'QuuP' Running page(Meraker)

Meraker develops its own AI-based Visual Effects (VFX) technology

Founded in November 2021, Meraker is a company that has developed its own video special effects (VFX) technology using AI. As of October 2023, it has received an investment of 1.25 billion won.

Meraker operates a project called 'QuuP,' applying its self-developed AI video special effects (VFX) technology. VFX technology is widely used not only in computer graphics (CG) movies but also in live-action films and dramas.

Especially with the emergence of online video services (OTT) like Netflix, there is a steep increase in the demand for high-quality VFX production. However, the increase in time, cost, and manpower to produce high-quality VFX is limited, and the burden on VFX studios is growing over time.

Meraker's self-developed AI VFX technology, QuuP (VFX Quality Up), can reduce the cost and duration of traditional VFX production. QuuP can upgrade 2K rendering results to 4K rendering results, based on movie and drama VFX quality standards.

Meraker's Competitive Edge

Meraker stands out for its convenience and flexibility. The QuuP program can be applied to work with just a few clicks without changing the existing VFX work routine. It is compatible with existing video editing tools like Maya, Blender, and Nuke, no need to learn new tools as allowing users to continue using their current tools. Another advantage is that it can create high-quality rendering results with minimal effort, without discarding previously rendered results.

Meraker's Achievements and Future

Meraker has completed the development of AI-based upscaling core technology and is now collaborating with studios to commercialize the product in a market-desirable form.

Currently, Meraker is collaborating with Wysiwyg Studio to apply AI upscaling development technology in VFX video content production. Additionally, the company also plans to expand its business in the field of high-definition image generation based on optical technology that incorporates AI acquired while developing ophthalmic cameras.

In the future, Meraker aims to provide solutions that introduce AI technology across the entire content creation pipeline, from video generation to rendering and compositing, to optimize costs and contribute to the revitalization of the content business.

Nstyle

Be style with

Company Nestyle
CEO Lee Yong-kyun
Key Product/Service AI-Zac
Business Area Visual Intelligence
Website nestyle.ai

Nestyle's web novel creation platform 'AI-Zac' (Nestyle)

Nestyle Operates 'AI-Zac', a Web Novel Creation Platform Using Generative AI

Founded in November 2019, Nestyle operates 'AI-Zac', a web novel creation platform that utilizes generative AI technology. The company has received an investment of 1 billion won.

Nestyle's generative AI-based web novel creation service, 'AI-Zac Novel', offers various functions to web novel authors or aspiring writers to assist in their writing process. It helps to reduce working time and secure a large amount of IP.

Key features include writing and editing functions. The writing function encompasses creating synopses, characters, scenes, and stories. Post editing features include increasing the number of characters, changing writing style, and recreating the stories. Additionally, it provides creation of cover and illustration images.

Technologies used here include automatic story analysis and extraction, language vector-based similarity analysis, and story augmentation filtering technology.

Nestyle's Competitive Edge

The uniqueness of AI-Zac lies in its ability to analyze and organize tasks traditionally done by dozens of writers like plot developers, writers, and editors, and automatically generate stories through a mass production system. This can reduce creation time by more than 40%.

Nestyle possesses AI capable of producing content at the level of skilled writers. It can endlessly create IP like character settings with expressions and compositions required for each genre. It can be considered a more advanced model than Radish, the originator of collective creation.

Nestyle's Achievements and Future

Nestyle is an AI company specializing in offering various services using generative AI technology. The AI-Zac service is creating a revenue model by collaborating with web novel production companies and subscription platforms that have a demand for regenerating new content using owned IP or converting it into other areas like dramas or movies. Post 2024, the company aims to support Japanese and English for its global service expansion.

Company Petnow
CEO Yim Jun-ho
Key Product/Service
AI-based pet biometrics service
"Petnow"
Business Area Visual Intelligence
Website petnow.io

Petnow, a Service that Recognizes Dog Noses and Cat Faces

AI-based pet biometrics service "Petnow"(Petnow)

Petnow is a startup that provides AI-based pet biometrics services. The company was founded in August 2018 and currently offers an app service that automatically collects and retrieves the biometric information of pets (dogs and cats).

Pets also have unique biometric information, just like humans. In the case of dogs, the nose print is a unique biometric information like a human fingerprint. Cats can also be identified by their facial contours. Petnow has the technology to automatically acquire this biometric information through AI and identify each pet.

When the Petnow app is opened on a smartphone and a pet is pointed at the smartphone, the AI finds the pet's nose location and automatically takes a picture. This "auto-focus" feature allows you to automatically acquire the pet's biometric information.

Petnow's Competitive Edge

Petnow has developed a method of distinguishing between individuals using three AIs. Even without pressing the shutter button, the three AI technologies built into the app first find the dog's face, and then the nose. Even if the dog moves, it automatically tracks the nose and takes a picture.

Petnow uses its own machine learning(ML) technology for clear shooting. The quality of the captured photo is evaluated on the spot, and data with poor quality is discarded and re-shot. The captured photo is verified to be usable for recognition through AI technology, and this process takes only 0.08 seconds.

Petnow commercialized the registration technology through

recognition of cat facial contours in 2023. This is because cats often groom their fur, so their facial contours remain. This includes Petnow's AI object recognition technology. In addition, the AI neural network was newly designed and trained to match the behavior characteristics of companion cats. As a result, it was possible to achieve a cat face recognition rate of 99%.

Petnow's Achievements and Future

Petnow received the CES Innovation Award in 2022 and also participated in CES in 2023 to introduce a significantly improved pet biometrics service. It also participated in the IT exhibition "MWC 2023" held in Barcelona, Spain, and especially won first place in the AI pitching competition "Pitch Battle" at the international consumer

electronics exhibition "IFA" held in Berlin, Germany.

There were also achievements in improving the animal registration system. In August, a revision bill to the Animal Protection Act was proposed to add biometric information such as nose prints and irises to the methods of animal registration. France and Canada are also promoting the introduction of Petnow's nose recognition technology as a method of animal registration.

Petnow plans to provide services that apply pet biometrics technology to insurance. The company is also working to expand pet biometrics technology to many countries, including Korea, France, and Canada. Currently, Petnow technology has been introduced to 8 countries.

PIAX

MACS **SSAVE**

Multi-modal AI CCTV Security Solution "MACS" and Multi-modal AI Video Editing Solution "SSAVE"(Piaspace)

Piaspace Applies Multi-modal AI to CCTV Analysis and Video Creation

Piaspace is a startup that provides intelligent video analysis solutions based on multimodal artificial intelligence (AI) technology. The company was founded in April 2021 and has raised KRW 430 million in seed funding to date.

Piaspace's main solutions are MACS(Multi-modal AI for CCTV Safety Solution) and SSAVE(Smart Search AI For Video Editor).

MACS is a solution that can understand and semantically analyze the situation of a CCTV image based on multi-modal AI. MACS can automatically monitor a variety of situations, including violence, smoking, high-altitude work, risk situation prediction, interference of heavy equipment, flooding, fire, and falling. The solution can be connected via API, cloud server, or on-premises.

SSAVE is a solution that focuses on video analysis. SSAVE is also a multi-modal AI SaaS that searches video sections by scene using multimodal AI technology. With SSAVE, you can create new videos, monitor IP infringement of video content, and identify the creator most suitable for a video work.

MACS and SSAVE's Competitive Edge

MACS is characterized by its ability to understand the scene itself and detect specific situations beyond the existing intelligent CCTV technology of object detection, RTLS(Real Time Location System), and geo-fence.

SSAVE has the advantage of being able to understand the video itself. Until now, it was possible to search for keywords only for videos that have been tagged. On the other hand, SSAVE can search for the necessary scenes in a video without tags, and because it understands the video itself, it can find the desired scene even if the sentence is complex.

Piaspace's Achievements and Future

MACS has proposed an AI-based 4th generation CCTV control solution and is in the contracting stage with integrated control systems for each industry, including major domestic companies. Representatively, it is developing Samsung Heavy Industries safety management solutions, HD Hyundai safety control, and Shindong Digitech CCTV solutions for ships in collaboration. It is also participating in the AI-based CCTV upgrading work by each district office in Seoul.

It is also expanding its territory overseas. In Singapore, it is in the process of conducting PoC(Proof of Concept) related to CCTV analysis with a security company in a building. In addition, technology verification is being conducted at the request of a Malaysian defense industry company (introduction of video analysis AI required for ships and helicopters).

SSAVE has signed a contract with a major domestic travel agency, providing a solution that searches a large amount of internal DB based on AI. It is also working on a project to provide solutions for short-form production and past video search based on internal video data owned by broadcasters (JWONDER, Yonhap News Agency, etc.). Piaspace plans to enter the North American and Singapore (Southeast Asia) markets in the middle of 2024.

TURN UP

Company RISE ENM
CEO Kim Jeong-hwan
Key Product/Service
Computer vision-based multi-channel AD SaaS solution 'Turnup'
Business Area Visual Intelligence
Website turnup.ai

RISE ENM's 'Turnup' mobile execution screen and description(RISE ENM)

RISE ENM's 'Turnup': Find What You See, Buy What You Want

RISE ENM is a company that provides computer vision-based multi-channel AD SaaS (Software as a Service) solutions. It was founded in May 2022 and raised 300 million won in seed funding.

Turnup is a product search AI service that finds and connects information about fashion, digital, and furniture products from various content such as YouTube, Instagram, and Netflix. If you see a product you're curious about while watching a drama or variety show, you can search and purchase the product with just one button.

Available channels include YouTube, Instagram, TikTok, Naver TV, Naver NOW, Facebook, Wave, Tving, Netflix, Watcha, Coupang Play, Disney+, Apple TV, and Amazon Prime.

Turnup's core technology is a search engine that combines computer vision technology and AI technology that can recognize and analyze visual data (images, videos, etc.). RISE ENM provides this visual search engine as a SaaS service so that businesses can use it without additional development.

Turnup's Competitive Edge

While a typical search engine(portal site) analyzes text, Turnup can analyze visual information (images, videos) and find results. Big tech companies such as Google, Microsoft, and Naver also offer image search functions, but Turnup has the advantage of being able to search in videos.

Turnup product search AI not only provides visual information but also brand, product name, price, and purchase information.

In addition, with the Turnup solution, brands such as fashion, interior, and beauty can run simple advertising campaigns simply by linking product databases without setting up additional campaigns. The average conversion rate of display ads is less than 1%, but the average conversion rate of Turnup Ads is 5%.

RISE ENM's Achievements and Future

RISE ENM was selected for the startup incubation program selected by the Korea Technology Finance Corporation, ShinhanGroup, and ENSL Partners in April 2023.

RISE ENM is preparing for the global service of its AI visual search engine SaaS. Turnup is currently being operated mainly in the fashion category, but plans to expand to the interior and beauty categories in the future, and develop it into a service where a wider range of products can be searched from a wider range of categories.

STUDIO LAB

Company Studiolab
CEO Kang Sung-hoon
Key Product/Service
AI-based Commerce Content Design
Automation Service "SellerCanvas"
Business Area Language Intelligence
Website Studiolab.ai

SellerCanvas: 15-Second Product Pages for E-Commerce Stores

SellerCanvas by Studiolab is an AI-powered service that automatically creates commerce content (product pages, advertising materials, etc.).

Product pages for fashion products are important content that can drive conversions, but it takes a lot of effort, including cost and time, to create one. SellerCanvas helps sellers save time and money by creating product pages by simply uploading product images.

After uploading an image, Studiolab's vision AI model, which was developed through the learning of hundreds of thousands of fashion product images, identifies the characteristics of the product and creates a product page with a layout, design, and description that suits the product in a short period of time.

Studiolab also automates brand design (brand name, logo, core values,

etc.) through its Brand Canvas service.

SellerCanvas's Competitive Adge

Small-scale shopping malls often have difficulty using design tools when creating products themselves, and outsourcing production is expensive. SellerCanvas allows anyone, even if they don't know how to use Photoshop or are not a design expert, to create consistent quality product pages by uploading product photos on the web and suggesting page designs by AI. The phrases used to describe the product are also suggested by SEO-friendly sentences, so the product is more likely to be exposed in search results.

SellerCanvas allows anyone to easily conduct high-quality commerce photography on their own through a photo automatic shooting robot.

AI-based Commerce Content Design Automation Service "SellerCanvas"(Studiolab)

In addition, by automating product photography, it guarantees uniform image quality and accuracy, and minimizes repetitive tasks.

Studiolab's Achievements and Future

SellerCanvas has been proving its marketability through PoC(proof of concept) with more than 30 small business sellers and domestic fashion conglomerates since being selected as a promising styletech company in 2022.

They are also preparing for global expansion. In June 2023, they participated in the "Vivatech 2023" exhibition held in France and won first place in the retail solution competition. In October 2023, they introduced SellerCanvas at the "Big Data & AI World 2023" held in Singapore and held PoC introduction

meetings with commerce platforms in Southeast Asia and Japan, including Shopee. They are focusing on partnerships with e-commerce platforms and fashion brands.

Company SymbioteAI
CEO Kim Tae-hun
Key Product/Service VIRTU
Business Area Visual Intelligence
Website symbiote-ai.com

SymbioteAI's avatar social platform 'VIRTU'(SymbioteAI)

SymbioteAI Provides Avatar Experience to Everyone with Mobile Motion Capture Technology

Founded in November 2021, SymbioteAI operates the avatar social platform 'VIRTU', applying its self-developed mobile motion capture technology.

SymbioteAI's main service, 'VIRTU', is an avatar social platform that allows users to make real-time video calls and broadcasts or create short videos. SymbioteAI operates the VIRTU service to deliver the 'experience of being someone else digitally' to 7 billion people.

VIRTU offers the primal fun of becoming an entity with different appearances and genders, breaking free from the physical laws of reality. With VIRTU, users can have a completely different user experience and opportunities for creation in services like YouTube, Twitch, and Azar, which were previously based on their real faces.

SymbioteAI's Competitive Edge

SymbioteAI's VIRTU utilizes mobile motion capture technology. This technology allows users to move avatars as if they were their own bodies, not with expensive motion capture equipment costing over 10 million won, but with a 200,000 won budget smartphone.

In fact, VIRTU attracted more than 2.6 million users from countries like North America, China, the Middle East, and Japan in just 6 months after its launch, without significant marketing.

SymbioteAI's Achievements and Future

VIRTU aims to provide a completely different user experience and opportunities for creation compared to services like YouTube, Twitch, and Azar, which were based on one's real face.

To this end, SymbioteAI is conducting research on creating 3D avatars, aiming to provide 100 million avatars to match the tastes of 100 million people. They are continuously researching and developing pioneering technologies to make it easy for anyone to create the digital content they want.

In the long term, SymbioteAI intends to build an ecosystem where avatar creators can make profit through a marketplace.

Triplet

AI retail platform 'DeepLounge'(Triplet)

Triplet, Runs more Efficient Stores with AI Retail Platform 'DeepLounge'

Founded in May 2015, Triplet provides an AI retail platform, DeepLounge, to improve the efficiency of store operations. It has received Pre-A investment.

DeepLounge offers three solutions based on a 'Store Analysis AI' that analyzes visitors' gender, age, movement paths, dwell time at displays, and behavior. These include a '1:1 Hyper-Personalized Recommendation AI,' and an 'Unmanned Store AI.' All solutions are based on AI cameras and big data analysis.

The Store Analysis AI digitalizes visitors' data and behaviors, meticulously analyzing customers' shopping journeys to provide offline store operators with accurate marketing insights. The Hyper-Personalized Recommendation AI uses collected data to recommend products tailored to consumers' preferences and information, enhancing their purchasing satisfaction.

DeepLounge's Unmanned AI helps implement completely unmanned stores. AI cameras quickly detect real-time inventory status and alert staff about stock shortages, optimizing manpower and reducing operational costs. The company also developed RFID and barcode-based checkouts and anti-theft gates.

Triplet's Competitive Edge

Triplet supports data-based store operation. Its 360-degree AI cameras collect data seamlessly and present it in a visual format. This allows solution users to operate stores based on proven data.

Triplet owns various technologies to solve problems like false detections, data loss, data twisting in blind spots, and duplicate counts. These technologies have been validated through projects with numerous large corporations, startups, and international clients.

DeepLounge solutions are cost-effective. A single camera serves multiple purposes, including CCTV and analytical tools. It also maximizes labor cost efficiency by eliminating the need for manual data collection and enabling unmanned store management.

Triplet's Achievements and Future

Currently, the DeepLounge solution is officially supplied to major distribution companies like E-Mart, GS Retail, Lotte Chilsung, and global brands like Guess. It has also been supplied to Hallasan National Park in Jeju Island.

Triplet's technology is gaining recognition not only domestically but also in international markets. Following its participation in 'CES 2023', the company has been actively participating in international exhibitions like the '2023 Big Data & AI World' in Singapore and the '2023 Barcelona SCEWC' to explore foreign markets.

Triplet is engaged in various projects to validate its AI camera technology along with the DeepLounge solution. In line with Triplet's motto, "Design New Humanity," the company aims to become a company that provides innovative insights based on AI technology.

Company Vdigm
CEO Kim Young-wan
Key Product/Service
AI-based 3D Avatar Creation
Solution and 'TIH' Service
Business Area Visual Intelligence
Website vdigm.com

AI-based 3D Avatar Creation Solution and 'TIH' Service image.'(Vdigm)

Vdigm Provides Virtual Space Housing and Support Services for Virtual YouTubers and Streamers

Founded in May 2020, Vdigm is based on a deep learning-based 3D avatar creation solution. Currently, it is preparing services under the 'TIH (Tomorrow, In Here)' brand. TIH consists of virtual space housing and support services for virtual YouTubers and streamers, as well as healthcare services using AI avatars based on life logging.

Vdigm's target customers are the global Generation Z for whom video content is a part of everyday life, with the target market being the realistic 3D-based short-form video market. The 'TIH' service provides a housing function that allows building houses in virtual space. It enables users to build houses in virtual space for virtual stage housing, choose interior items, and automatically arrange or decorate them. This function is also used as a space for virtual YouTuber broadcasts.

Additionally, the 'TIH' service supports virtual YouTubers and streamers in customizing avatars that resemble themselves or as they desire. It also provides features to generate broadcast scripts and easily express avatar expressions and movements.

Vdigm's Competitive Edge

Existing virtual YouTuber motion methods are in 3D but the graphic quality is limited to cute 2D-style animations. It has been difficult for regular YouTubers or streamers to use high-quality 3D graphics due to cost and production challenges.

Vdigm operates a service platform for immersive 3D to solve these problems. They provide services that include realistic 3D spaces needed for broadcasting, avatars that reflect one's face or are uniquely customized, and easy motion capture methods for more accessible realistic broadcasting.

Vdigm's Achievements and Future

Vdigm has been supplying customers with a realistic 3D avatar creation solution using generative AI since 2021. They have been selected for the AI voucher support project and are expanding their customer base. In 2022, they were selected for the Ministry of SMEs and Startups' 'TIPS' program. In March 2023, they were selected as a tenant company of the Seoul AI Hub and moved their corporate research center to Yangjae.

Vdigm also possesses an AI technology called 'DeepReal,' which corrects 3D objects and background spaces to make them harmonious. They plan to allow not only virtual YouTubers but also regular YouTubers and streamers to use 3D background spaces or props in their one-person broadcasts through the 'TIH' service platform. They also aim to expand the market to regular users and the general public who enjoy video content.

Additionally, they have filed a patent for a 'Life Logging-based AI Avatar Healthcare Service' using smartphones and smartwatches and are currently preparing a 'Medical AI Assistant Service' using realistic AI avatars.

![visualcamp logo]

Visual Camp Provides AI-Based Eye Tracking Software

Visual Camp utilizes AI to provide a SDK for app development based on eye tracking data. (Visual Camp)

Founded in 2014, Visual Camp utilizes AI to provide a Software Development Kit (SDK) for app development based on eye tracking data. To date (Series B), the company has attracted about 5.8 billion KRW in investments.

Visual Camp's 'SeeSo' creates real-time data on which parts of the screen users are focusing on. SeeSo is offered in SDK form, which can be operated using the front camera of smartphones, tablets, and other smart devices, or web cameras on laptops and PCs. A key feature is the affordability of this eye tracking technology, allowing anyone to develop new web/app services.

Visual Camp's Competitive Edge

The distinction of the SeeSo SDK lies in its ability to determine the gaze position using just the front camera

of smart devices or PCs, without additional hardware, and convert this into data to analyze user intent. The eye tracking solution of SeeSo can be applied in various fields such as education, healthcare, UI/UX, and e-books.

Unlike competitors, which require 5-9 calibration points for eye tracking, SeeSo can calibrate with just a single point, taking only about one second. This makes the process of collecting eye tracking data simpler, faster, and capable of real-time processing, compared to longer and more complex processes of other products.

Visual Camp's Achievements and Future

Visual Camp's technology is primarily used in the education sector for monitoring learning attitudes, tracking whether students are looking at

the screen and focusing on specific sections of the content. It's being utilized by institutions like Kyowon, Visang M-learning, i-Scream edu, and Woongjin Thinkbig.

In the medical and healthcare sector, they adopted a cognitive diagnostic app that allows users to diagnose and measure cognitive function anytime, anywhere. Partners include Ewha Womans University Mokdong Hospital, altoida, Emocog, and and Hi Corporation.

In data analysis, it's applied in video media analysis to verify video quality and understand if user gaze stays on areas of interest (AOI). Clients include AmorePacific, Korea Research, PLAYGROUND XYZ, and others.

There's also an eye-tracking-based recommendation feature for e-commerce, which analyzes user gaze data to improve purchase

conversion rates. By integrating eye data with existing data, it aims to enhance CRM, with A.CONIC as an example of its use.

Visual Camp aims to enter the global market by 2024, striving to become a global first-mover in eye tracking technology.

![WiSH logo] **WiSH**

Company WiSH
CEO Lee Beom-woo
Key Product/Service
Real-time multi-camera
multi-person 3D motion capture
solution 'WiMOTION'
Business Area Visual Intelligence
Website wish.global

WiSH, Real-time 3D Motion Capture with only Multi-cameras

WiSH's real-time multi-camera multi-person 3D motion capture solution 'WiMOTION'(WiSH)

WiSH is a startup founded in May 2023. Despite its early stage, the company's technology, which can overcome the limitations of traditional motion capture, is attracting great attention in a variety of video content production environments.

WiSH's real-time multi-camera multi-person 3D motion capture solution 'WiMOTION' is a computer vision AI technology that extracts the location of people's joints from multiple-view videos and converts them into 3D motion information.

WiMOTION detects people's movements in a capture space equipped with multiple RGB cameras, and captures 3D motion in real time or non-real time by receiving video input from the cameras. It is compatible with commercial 3D tools such as Unreal Engine, Unity, Blender, and Maya.

How WiMOTION Differs from Traditional Motion Capture

Traditional motion capture requires actors to wear expensive marker suits and shoot in a limited background and lighting environment. In contrast, WiMOTION can be operated with just a few general RGB cameras and an AI inference PC, and it is possible to track the body and fingers of actors without the need for equipment during shooting.

WiMOTION is divided into real-time motion estimation and non-real-time precise motion estimation. Real-time motion estimation can track the motion of up to 10 people simultaneously, with a pure estimation FPS of 30 frames per second, providing users with smooth visual effects.

Non-real-time precise motion estimation uses a much larger AI model than real-time motion estimation to extract information on more than 100 important body keypoints, including both hands and faces, for each person. It then adjusts the information to match the person's unique anatomical structure, such as height and build, and considers body mechanics to ensure smooth movement between frames.

WiMOTION as an Alternative to the Motion Capture Market

WiMOTION can be used in the same way as traditional motion capture for the production of movies, dramas, and games. It can also be applied in a variety of other ways. For example, WiMOTION is currently in the process of being deployed at a museum to provide a real-time interactive/immersive content service that uses WiMOTION as a real-time motion input device. WiMOTION can be used as an interactive content in permanent exhibitions, pop-up stores, and short-term events.

WiSH was founded in May 2023 and is a six-month-old startup. The company plans to prioritize pilot projects with major partners to verify the above use cases.Technically, the company is in the process of integrating face tracking functionality with the existing 'body+hand tracking' functionality.

4DIVISION

4DIVISION Develops Ultra-Fast Edge AI 3D Vision Sensor Based on Embedded Systems

▌불량 검출과 빈피킹을 동시에 수행

카메라 모듈화 　 임베디드(GPU 내장)

+ Edge AI
(AI 시각지능)

3D 로봇 팔 랜덤 빈피킹 솔루션

로봇 팔 모션 계획 및 제어

2D &3D 데이터에 의한 물체 인식
정밀한 3D 포인트클라우드 생성
로봇 팔 직접 제어 및 동작 계획
시뮬레이터를 이용한 로봇 팔 프로그래밍

표면 불량 검출 솔루션

자동 검출에 의한 품질 확인

깊이가 큰 형상과 표면 불량 동시 측정
무광택면 스크래치 및 파손 측정
(금속, 플라스틱, 종이 등 다양한 재질)
비전문가를 위한 쉬운 조정

4DIVISION's ultra-fast edge AI 3D vision sensor 'TesseraVue'(4DIVISION)

Established in August 2023, 4DIVISION is a company that develops the ultra-fast edge AI 3D vision sensor 'TesseraVue' based on embedded systems. TesseraVue is an ultra-lightweight sensor weighing about 1kg, supporting solutions for 3D robotic arm random bin picking and surface defect detection.

Utilizing structured light-based phase measurement method, it enables precise measurements at the sub-micrometer level in a short time. It is suitable for robotic arm automated assembly processes and surface measurement. Mounted on a robotic arm, it can recognize objects in real-time and execute work plans, enhancing usability.

The 'IronVue', based on ultra-fast and multi-camera line scanning, is used for inspecting metal and plastic surfaces for printing and shape.

Combined with a 3D laser profiler, it can measure depth. It also performs chemical composition analysis through infrared spectroscopy.

4DIVISION's Competitive Edge

TesseraVue has built-in deep learning models, allowing even non-experts to easily apply object recognition and defect inspection.It also combines 2D images and 3D point clouds to achieve online learning optimization on sensors without the need for a PC or server.

4DIVISION implemented a digital twin through a simulator and simplified robotic arm programming to reduce complexity. It also offers the advantage of remote maintenance, reducing costs.

4DIVISION's Achievements and Future

In line with the global trend towards unmanned factory adoption, there is an increasing need for robotic arms with high precision and visual intelligence for fully unmanned processes. Existing 2D and 3D sensors face difficulties in fine processes due to low accuracy. In contrast, the combination of high-precision 3D sensors and AI can replace manual human work.

Currently, 4DIVISION's services are used in LG Electronics' Changwon factory, Hyundai Wia and more. 4DIVISION provides 3D sensor-based robotic arm random bin picking solutions with standardized functions for each industry or process.

In the future, 4DIVISION plans to enter the unmanned process of large factories such as automotive, shipbuilding, and home appliances. Based on this, they will increase the utilization of robotic arms spread in small and medium-sized factories.

Language
Intelligence

Company ALI
CEO Lee Min-ho
Key Product/Service
Document Processing and NLP(Natural Language Processing) Solution "AskMe"
Business Area Language Intelligence
Website neoali.com

ALI's Document Processing and NLP(Natural Language Processing) Solution "AskMe"(ALI)

ALI's "AskMe", Uses Document Learning to Answer Questions in Natural Language

ALI is a startup that was founded in January 2019 to develop document processing and NLP(natural language processing technologies). The company received an investment of KRW 300 million from the Korea Technology Finance Corporation in 2020, KRW 1000 million from NCsoft in June 2021, and KRW 1500 million in April 2023.

ALI's AI knowledge service "AskMe" is a new answering solution that learns document-based knowledge and delivers answers in natural language, breaking away from the inefficient and low-performance ontology approach. It can handle everything from document processing with various formats to generative answers, and can be used more efficiently and widely by using techniques for formalizing unstructured data.

AskMe applies the same principle of how humans acquire knowledge to AI. AI itself asks and answers questions, and elevates vast documents that are nothing more than simple text to valuable text as knowledge. AskMe also uses an algorithm that learns on its own without labeled data. This allows it to learn documents in about 30 seconds or less.

Key Features of AskMe

AskMe's main features are ▲advanced document processing technology and search capabilities, ▲on-premise language models that can be provided as built-in.

First, advanced document processing and search capabilities allow users to extract information directly from files such as PDF, ODT, and HTML, minimizing the effort required to process the model input.

They provide efficient document processing and search capabilities so that users can quickly find information even in long reports or books.

Second, on-premise language models can provide built-in models in environments where external internet access is not possible due to security issues. They can also provide advanced solutions with a small model size by specializing them in the domain of the user's choice.

ALI's Achievements and Future

AskMe has been used to answer users' questions from the information uploaded to chatbots for answering questions about internal rules in HR systems, chatbots for answering inquiries about employment information, and chatbots for answering questions about health information.

ALI provides high-quality natural language processing services based on its excellent technology. The company also plans to enter the global market through English services in addition to Korean services. In addition, ALI aims to provide AI services that allow users to have in-depth conversations as well as simply obtaining information by linking it to the persona chatbot model that it is developing.

ALI also plans to develop and utilize generative AI models to provide users with more satisfying answers, as well as to provide more advanced services using technologies for understanding tables and charts in documents.

common computer

Company Common Computer
CEO   Kim Min-hyun
Key Product/Service
AI Network, AI NFT
Business Area Language Intelligence
Website   comcom.ai

Common Computer's AI Network Ecosystem (Common Computer)

Common Computer Aids Easy AI Utilization with AI Network and AI NFT

Founded in May 2018, Common Computer is a startup creating 'The Internet for AI' for the Web 3.0 era, enabling anyone to easily utilize AI on the web and metaverse through its own blockchain technology. It has attracted 13 billion won in Series B investment.

Common Computer's AI Network is the world's first blockchain protocol-based collaborative computing architecture for AI and the metaverse. It allows anyone to freely combine models, data, and computing resources needed for AI development in a modular form. Moreover, AI modules currently operating on the AI Network can be used as services, and they can be optimized and utilized with minimal tuning.
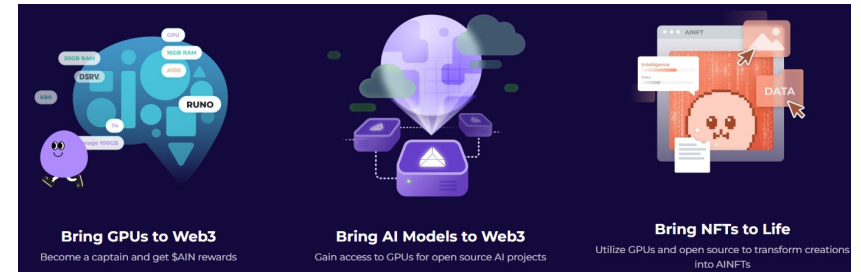
'AI NFT' is a technology that combines AI with NFT formed in the metaverse market of the Web 3.0 era,

recreating existing NFT and giving them an identity based on data, enabling interaction with users.

Common Computer's Competitive Edge

The AI Network protocol shares various modules and data that make up AI in a live service form, helping anyone to implement and utilize AI. Even without expertise in AI development or AI backend infrastructure, it is easy to tune or service the latest models.

Another feature of Common Computer's solution is its blockchain platform that enables Collaborative AI, which can address and utilize mega-scale open models. It owns blockchain technology that can connect numerous large-scale AI in the metaverse, combine them with NFT, and operate as a database (DB)

infrastructure and AI as a Service (AIaaS) platform for Web 3.0.

Common Computer's Achievements and Future

Common Computer was founded by former Google engineers. They continue to develop their own blockchain technology, AI Network, and are working on AI x NFT projects with various partners.

Currently, the company is working with global partners such as LG Electronics, LG AI Research, Line Next, and Pinkfong USA in recognition of its technological excellence. In July 2023, the company successfully raised a Series B bridge round of funding.

By 2025, Common Computer aims to connect 20,000 GPU through the AI Network, making the latest mega-scale open models accessible to everyone. Additionally, it plans to

train and provide models tailored to the specific needs of businesses by combining GPU supported by the AI Network with various open-source models, thereby expanding global B2B support.

In the NFT field, it plans to operate 10,000 AINFT projects and support live services in various metaverses based on the AI Network.

Company   mofl
CEO   Seong Si-hyun
Key Product/Service   Mofl Exsight
Business Area   Language Intelligence
Website   mofl.ai

Mofl Optimizes Product Demand and Supply Based on AI Time Series Prediction

mofl Exsight.(mofl)

Founded in December 2018, mofl is a startup that predicts demand based on AI time series forecasting and provides work automation and efficiency solutions. To date, the company has received an investment of 200 million won.

Mofl operates a service for optimizing real economy demand and supply based on time series prediction AI. Its service "mofl Exsight" provides a variety of monitoring solutions from data inspection, correction, and linkage to AI model creation and dashboards.

Mofl currently conducts business in two areas using time series prediction AI, retail demand and stock price forecasting. It provides SaaS that achieves supply chain efficiency and automation through precise future predictions.

The company combines internal data from clients with external data to build databases, perform inspection/correction, management, and predicts the future of key time series data integral to client businesses. Retail demand prediction offers solutions that estimate the demand for new products based on past sales data of clothing stores, enabling inventory distribution close to actual demand. This minimizes inventory loss and reduces logistics costs, thus improving profitability.

Mofl's Competitive Edge

While much of the AI technology being developed today is focused on image and natural language processing, mofl is developing AI that uses time series data to predict the future.

The advantage of mofl is its high-accuracy AI modeling technology.
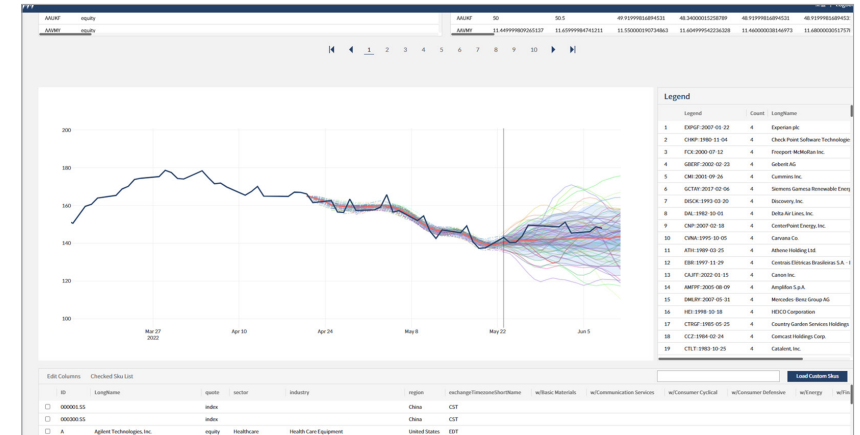
Mofl has an AI time series prediction engine with accuracy levels that have surpassed the threshold to generate practical utility in actual work environments. Based on this, it can automate much more complex supply chain management (SCM) logics than other services in the industry.

Mofl's Achievements and Future

Mofl has automated the logistics of a fashion SPA brand with more than 1 trillion won in domestic sales, improving defective losses by more than 20% and reducing work input time by 80%.

Mofl aims to continuously strengthen AI technology to significantly improve client financial metrics and improve software scalability to rapidly pioneer the market.

Plang

Company Plang
CEO Kang Min-kyu
Key Product/Service Plang
Business Area Language Intelligence
Website plang.ai

Plang uses AI to analyze learners' skills and recommend content(Plang)

Plang, a Customized English Conversation Service, Differentiates with 'Practical Training'

Established in June 2019, Plang is a company that develops and operates an English conversation service based on AI. It analyzes individual English proficiency through AI technology and recommends learning content. The company successfully attracted Series A funding.

Plang's main service, Plang, uses AI to analyze learners' skills and recommend content. Plang utilizes AI technologies like Natural Language Processing and voice recognition to analyze learners' English skills. It analyzes users' voice and text input to assess various aspects such as vocabulary level, understanding of grammatical structures, and pronunciation accuracy. The collected data is stored in user profiles and used to design personalized learning paths.

Furthermore, Plang uses AI to recommend learning content.

The algorithm finds patterns and correlations between learner data and English learning resources, then selects and provides materials deemed most suitable for the learner. Plang's goal is to find the most effective method for improving each individual's English proficiency.

Plang's Competitive Edge

Plang distinguishes itself by providing completely personalized English learning using AI. The AI analyzes the patterns, length, accuracy, words, and pronunciation of sentences spoken by learners, identifying their weaknesses. Based on this analysis, it recommends learning in real-time.

Additionally, Plang emphasizes practical conversation training. In Plang, the proportion of learning through speaking directly is as high as 90%. Learners speak English sentences

and receive evaluations on whether those sentences are semantically and grammatically correct. The AI points out awkward parts and provides detailed feedback on how to speak more naturally.

Plang's Achievements and Future

Currently, learners of various ages and professions are using Plang to improve their English conversation skills. Also, 5000 students across 30 schools nationwide are studying English with Plang. With the growing interest in AI-based education, educational institutions are increasingly inquiring about adopting the service.

Plang has recently entered the Japanese B2C market. In the long term, it aims to expand to other countries in Asia, Europe, and North and South America. In the B2B sector, the company aims for continuous growth and is looking to create future value in partnership with other companies.

teddysum

**TeddySum's "Blossom":
Compression Language Model
for Korean Assessment**

한국어 특화 모델

❄ Frozen ❄
🔥 Tunable 🔥

한국어 사전

한국어 특화
데이터

영어 SOTA
LLM

bLLOSSOM

Lora
Adapter

The operational method of "Blossom," LLM(Large Language Model) specialized in Korean
(Teddysum)

Teddysum is a natural language processing (NLP) company that provides services that analyze and summarize the content of various forms of language using artificial intelligence (AI). The company was founded in January 2021.

Teddysum has developed a compression language model called "Bllossom" that is specialized for Korean assessment. This model can understand and summarize conversations, automatically evaluate writing, and is specialized in summarization and inference. It also supports multiple languages.
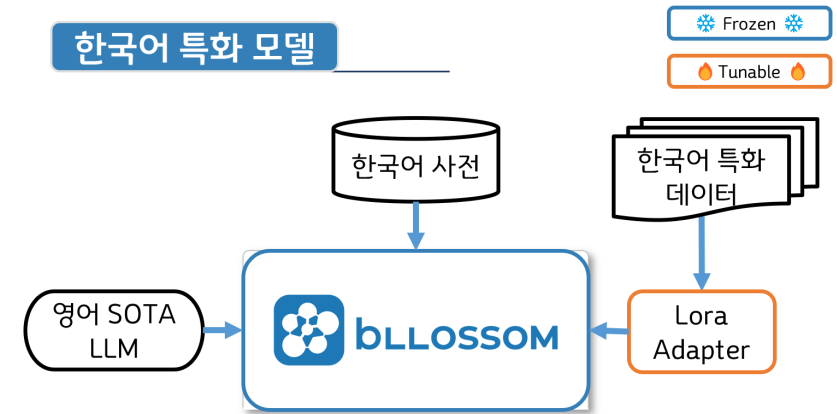
The Bllossom model is advantageous for applying to special domains through efficient learning with minimal data, and it is possible to automatically evaluate writing through AI. Currently, this technology is being used to evaluate AI responses based on an LLM (large language model) specialized for Korean writing assessment.

Bllossom: Specializing in Korean language learning assessment for foreigners

The number of foreign Korean learners is increasing by an average of 16.1% annually due to the influence of K-pop. However, there are not enough opportunities for education, and the cost of manual evaluation is high. The Bllossom model can be a solution to perform Korean language learning assessment for foreigners while reducing time and cost.

Bllossom is being used as the reference model for AI evaluation platform AI Malpyung of the National Institute of Korean Language. It also achieved better performance than other compression language models developed and commercialized in Korea, which was submitted as a paper to an overseas academic conference.

Teddysum's Achievements and Future

Teddysum was founded by Ph.D. graduates of the KAIST Natural Language Processing Laboratory. Since its founding in 2021, the company has been recognized for its technology through winning the AI Championship, participating in national R&D projects in 2022, and presenting research results at major academic conferences.

While existing NLP research and technology have focused on document analysis, teddysum's AI model shows excellent summarization performance even among domestic Korean models.

Currently, teddysum is preparing an "automatic assessment system for Korean writing by foreigners" based on this technology. Once this system is completed, the company plans to expand its AI-based assessment and proofreading services to the global market, which are provided in multiple languages.

In the long term, teddysum has set a goal of developing a multi-modal model of Bllossom to further enhance assessment technology.

VODABi

Company Vodabi
CEO Lee Sam-hyeon
Key Product/Service
AI-powered sales conversation analysis technology
Business Area Language Intelligence
Website vodabi.com

VODABi, AI-Powered Conversation Analysis Service To Boost Sales Performance

The process of conversation analysis based on VODABi's AI algorithm(Vodabi)

VODABi is a specialized company in AI-powered sales conversation analysis technology. The company was founded in January 2020 and successfully raised a pre-Series A investment in October 2023.

The VODABi service is an analytical algorithm model and solution that provides analysis of call center and chatbot conversation contents, evaluation of sales conversation fidelity, and sales closing possibility score. It can be used as an important indicator for the operation of customer centers and sales teams, as it has been confirmed to have a high correlation with actual results.
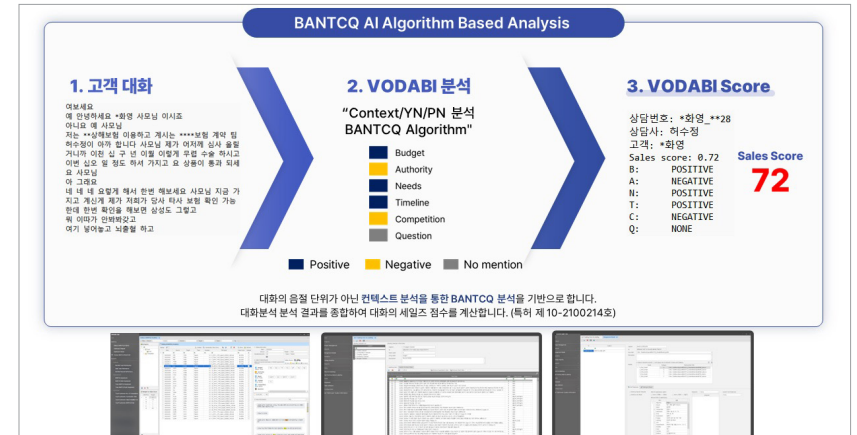
By using the VODABi service, you can focus on customers with high closing possibilities. You can also improve performance by intuitively discovering points for improvement and operating in a way that increases closing possibilities, and you can realize cost savings through cost-effective sales team/customer center operations.

Distinctive Features of Vodabi Technology

VODABi analyzes various types of conversations with customers, such as smartphone calls, video conferencing conversations, and messenger conversations, using the "BANTCQ" technology. This technology is a patented analysis framework of VODABi, and it is positioning itself as a customer of competitors in the North American market through licensing of this technology.

Currently, the 'VODABi for Zoom app' that connects to Zoom meetings, Zoom chat, and Zoom phone is officially registered on the 'Zoom Marketplace'.

Achievements and Future of VODABI

VODABi won second place in the 'Seoul AI Hub × KT Idea Contest' held by KT and Seoul AI Hub in 2022. It also signed an AI partnership with KT.

VODABi is currently building a variety of financial customer references. It is currently conducting a PoC (Proof of Concept) with DB Insurance, and a PoC with a life insurance company, including investment, has been confirmed. In addition, IBK, Hyundai Marine & Fire Insurance, and Hanwha General Insurance are also reviewing PoCs.

VODABi has partnered with UiPath, a RPA(Robotic Process Automation) company, to integrate it into its 'AI Center Platform'. It is also in talks with Microsoft for a partnership, including integration with OpenAI's ChatGPT.

VODABi plans to secure domestic insurance companies (62 insurance companies, 1050 comprehensive insurance companies) as its first customers. It then aims to enter the overseas market and expand its scope (automobile, real estate, etc.). To this end, it established a Canadian branch in 2022. Starting with the acquisition of North American customers in 2023, it plans to expand its scope to various countries from 2024. In addition, it plans to expand its collaboration with global platforms such as Microsoft, Amazon Web Services, and Salesforce.

XL8

Company XL8
CEO Tim Jung
Key Product/Service EventCAT
Business Area Language Intelligence
Website xl8.ai

The real-time translation solution 'EventCAT'(XL8)

XL8, Provides Real-Time Automatic Translation Solution Using AI

Founded in October 2019, XL8 is a company that provides real-time automatic translation solutions using AI technology. The company has received 15 billion won in Series A funding.

XL8 offers subtitles by translating various languages in real-time. Its flagship services include 'MediaCAT' and 'EventCAT'. The translation service 'MediaCAT' is actively used for translating subtitles of pre-produced videos such as movies and dramas. Customers can use AI-powered cloud platforms to translate videos into various languages, which is utilized by professional translation companies and translators.

The real-time translation solution 'EventCAT' provides a service where customers can view translated subtitles on screens, personal tablets, mobiles, etc., at offline events in the language of their choice.

XL8's Competitive Edge

XL8 has built its own translation engine using perfect data translated by professional translators in the field of OTT and other video sectors.

Media and colloquial translation accuracy is over 20% better than other companies. Additionally, to enhance colloquial translation accuracy, XL8 has incorporated various AI technologies such as Multimodal translation, Context Awareness, and Personalization.

It has the advantage of providing an easy-to-use, field-friendly solution with cost savings of at least 30% compared to labor-intensive processes.

### XL8's Achievements and Future

XL8's MediaCAT has been actively used for subtitle translation in post-production stages of pre-produced videos like movies and dramas. It is currently used by the world's leading OTT platform.

XL8 has been utilizing real-time translation solution EventCAT to expand beyond video translation to events such as home shopping, live broadcasts, and online and offline international conferences. Recently, it has been used at various events such as the Nature Forum, an event for multicultural families at the Leeum Museum, and the 2023 Content Universe Korea.

XL8 plans to continue providing services that make language differences not an inconvenience for anyone worldwide.

Voice
Intelligence
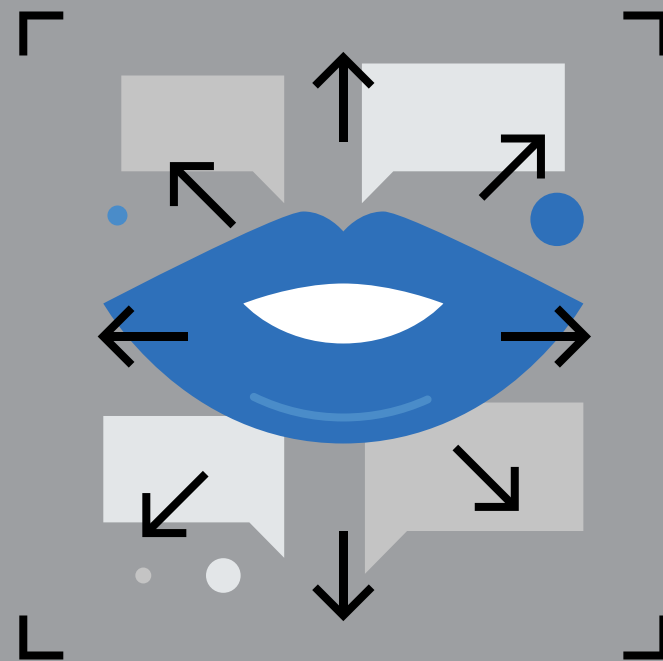
CATCHFLOW

Catchflow Develops Ultra Directional Sound Solution

Founded in June 2018, Catchflow is a company that develops directional sound solutions, providing sound and information to specific areas only. Catchflow has received investments from Samsung Venture Capital, Hyundai Motor Company ZER01NE, CNTTech, and others.

Catchflow's 'directional speakers' use directional properties to deliver sound to a specific, desired area in one direction. The speaker uses sound in the 40KHz ultrasonic band, which is inaudible to the human ear when it is transmitted, but audible when it hits an object or person. This method controls the spread of sound and can reduce noise by more than 20 decibels (dB).

Furthermore, Catchflow's directional speakers can recognize users' posture and situation using user recognition sensors and cameras, enhancing the utility of the directional speakers.

Catchflow's Competitive Edge

Catchflow's directional speakers are characterized by their small size and competitive pricing. The company achieved low power, long product life, and stability through optimized design. Additionally, they do not require an additional installation module (AMP) and are easy to install due to the high versatility of their mount attachment.

Catchflow's directional speakers can also be customized for signage and kiosks due to their one-piece, modular construction. They are particularly useful in spaces with many people, such as supermarkets, art galleries, and buses.

The user-recognition directional speaker "SRAY-D" is installed at 20 ATMs in Tokyo and provides "voice phishing prevention guidance services."(Catchflow)

Catchflow's Achievements and Future

To date, the directional speaker SRAY-S has been applied in various places including Asia Culture Center, Seoul Biennale, and Seongnam Funeral Culture Office. The user recognition type directional speaker SRAY-D has been installed in 20 ATMs in Tokyo with the cooperation of the Tokyo Metropolitan Police Department in the first half of 2023, providing a 'voice phishing prevention guidance service'.

Catchflow is currently developing an AI video processing algorithm that can recognize user posture, situation, and even emotions. The company plans to release various solutions and services suitable for domestic situations by integrating the directional speakers with the AI video processing algorithm.

field S

FieldS's 3D-AI plugin software image(fieldS)

FieldS Produces Real-time 3D Content with 3D-AI Plugin Software

Founded in 2022, fieldS is a company that develops 3D-AI plugin software(SW) to easily integrate AI into 3D content and services.

FieldS is developing software that operates AI models in real-time 3D content and services. FieldS's solution can create 3D characters by inputting 2D facial images, and all processes are automated. It can also discern words and emotions in a voice to animate the facial expressions of 3D characters. FieldS will also offer real-time interpretation in the future.

FieldS's Competitive Edge

A distinguishing feature of fieldS's solution is its compatibility with various game engines. Additionally, they possess technology that enables free movement in VR (Virtual Reality), such as teleporting and interacting with objects like grabbing and throwing.
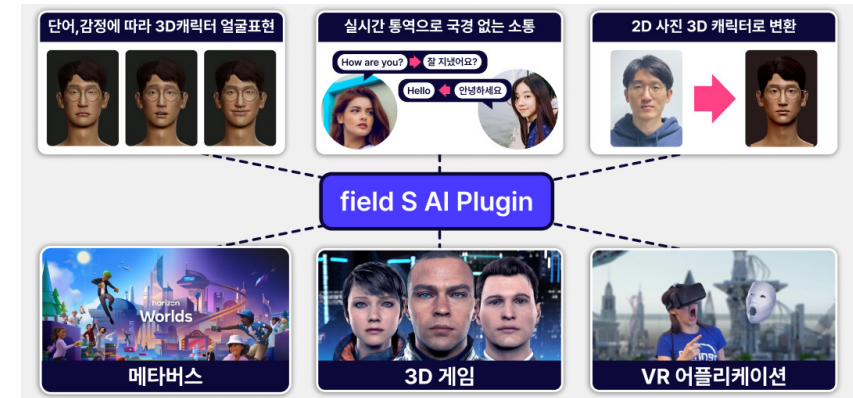
The solution can be used without expensive camera equipment and can change the expressions of characters in real-time through voice recognition capabilities.

FieldS's Achievements and Future

FieldS plans to apply this technology in the entertainment industry for VR fan meetings, concerts, musicals, etc. Besides creating virtual idols, they also foresee applications in various fields like metaverse, socializing, dating, travel, and edutech.

In the second half of 2023, FieldS intends to complete the development of an AI model that changes character expressions based on voice, a function to create 3D AI models from 2D facial images, and the production of VR thematic spaces.

By 2024, the company plans to organize partnerships with companies including entertainment companies and build an app/web production database and server. In 2025, they plan to launch beta and official services.

Data
Processing

COGCOM

Cognition and Computation

Company COGCOM
CEO Jeong Chi-hoon
Key Product/Service ReColumn
Business Area Data Processing
Website cogcom.kr

COGCOM's Data Task Automation Solution 'ReColumn' Boosts Enterprise Productivity

Established in August 2020, COGCOM has developed 'ReColumn', a data task automation solution using AI engines, which enables businesses to achieve work efficiency.
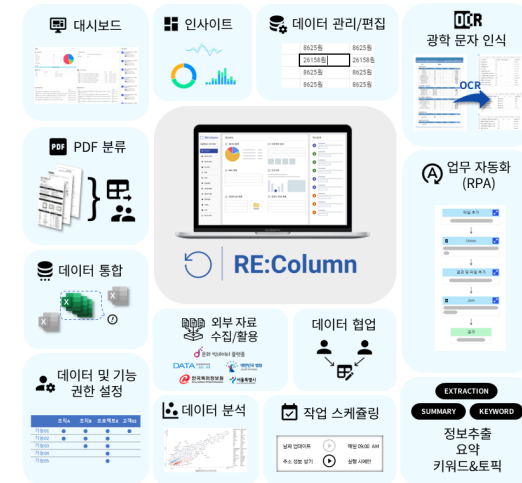
ReColumn uses automated modules and custom AI engines for data preprocessing that occurs in the process of document/data integration, thus practicing easy automation and efficiency of tasks.

ReColumn provides processes for AI-enabled information extraction, search, document/data conversion, data integration, and custom task automation. This automates manual work involved in data collection, integration, and sharing within companies, achieving operational efficiency.

COGCOM's Competitive Edge

Enterprises need to integrate documents and data like ERP, Excel, and PDF into desired result formats. Various BI (Business Insight) and SI (System Integration) solutions support this, but there hasn't been a solution that can be immediately customized to match the changing business processes of companies.

COGCOM's ReColumn platform offers services that easily link a company's data with external data and analyze relationships between them. It provides features such as ▲Robotic Process Automation (RPA), ▲Data Analysis, and ▲Report Generation, enabling users to examine data from various perspectives with just a few clicks, without complex installation processes or extensive knowledge of data analysis.

The ReColumn platform is mainly utilized in tasks requiring decision-making by experts in high-value industries like digital healthcare, precision medicine, e-commerce, and finance. It supports both task automation and data analysis, aiming to enhance work efficiency and improve corporate productivity.

COGCOM's Achievements and Future

COGCOM is currently providing document/data integration task automation services to Mercedes-Benz Korea and an automated academic paper information management service to Kangwon National University.

In the future, COGCOM plans to offer automated integration services linking Excel and PDF data with LLM. Additionally, it aims to develop and enhance search and creation technologies using RAG (Retrieval-Augmented Generation) technology, continuously developing new solutions tailored to corporate needs for improved convenience.

Company DroMii
CEO Stefano Lee
Key Product/Service
CfSM(CfSM, Car-free Street Mapping)
Business Area Data Processing
Website drome1123.wixsite.com

AI-based road image processing technology 'CfSM'(DroMii)

DroMii, a Road Information Solution based on Deep Learning and Drones 'CfSM'

Established in September 2017, DroMii is a company that creates 3D spatial information based on drone imagery and develops various road information solutions by combining machine learning. DroMii's AI-based road image processing technology 'CfSM' utilizes drones and deep learning to automatically remove vehicles from road images where vehicles are driving. As a result, it provides a clean view of the road without vehicles. These clean road images can be used as important data in various fields.

DroMii's Competitive Edge
DroMii has a unique point in the fusion of spatial information and AI. Most road measurement technologies require expensive equipment like MMS (Mobile Mapping System). In contrast, DroMii's CfSM is based on economical and effective drones,

offering the advantage of being able to shoot the entire road in both directions and detect everything in bulk.
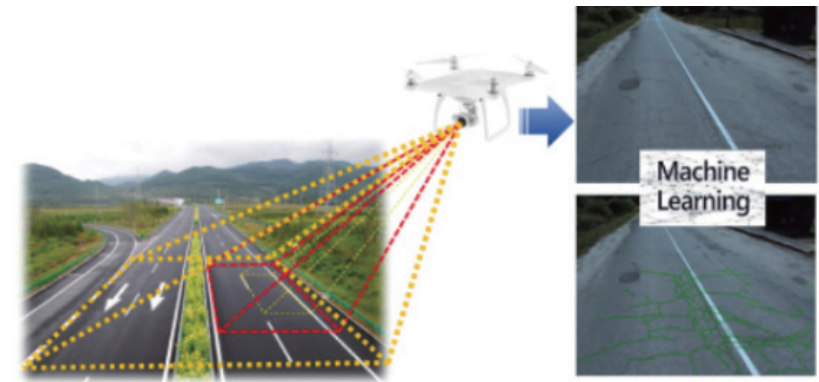
In addition, the CfSM solution has the advantage of solving all the problems in a single shot, whereas previously it was necessary to re-survey, re-shoot, etc. to obtain road data.

The data provided by CfSM is essential for creating High Definition Safety Maps (HDSMaps) and can also be used for maintenance of road surfaces, facility management, and 2D&3D modeling for building smart cities.

DroMii's Achievements and Future
DroMii has developed solutions such as a road orthophoto (a photo transformed to show all objects

vertically) production solution based on deep learning and drones, a 3D model production solution using multi-directional cameras, a lifelike road precision safety map (HDSMap) production solution based on drones, and an automated image processing solution using node-based network distributed processing.

Currently, DroMii is conducting a research project aimed at implementing a model that predicts traffic flow in real time by fusing the results of drone data through object recognition and tracking technology with existing black box data. This will contribute significantly to road safety and traffic flow optimization.

HyperEZ

Company HyperEZ
CEO Youn Sang-seok
Key Product/Service
PIE3D, Pinch
Business Area Data Processing
Website hyperez.io

HyperEZ's web-based 3D design software 'Pinch'(HyperEZ)

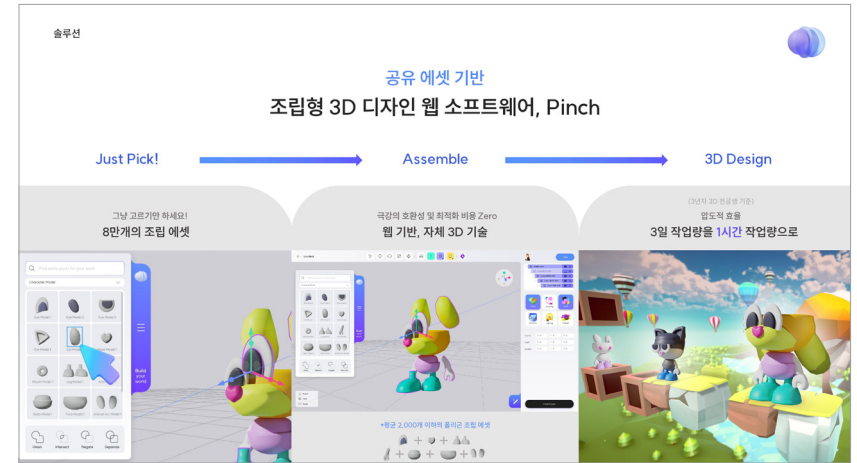## HyperEZ Supports AI Learning with Over 100,000 3D Processing Data

Founded in April 2023, HyperEZ operates the 3D data store 'PIE3D' and the web-based 3D design software 'Pinch'. PIE3D is a store where you can buy and sell 3D data needed for AI training, providing a platform to share digital files as digital assets. It supplies large-scale 3D data necessary for AI learning and reduces resources needed for creating entertainment & realistic media artwork.

The 3D design software 'Pinch' offers customized 3D modeling services upon corporate requests. It has the advantage of easily assembling and completing owned assets on the web, along with possible post-processing. Pinch is being used as a 3D design educational tool in collaboration with various companies in the metaverse edutech market.

HyperEZ's Competitive Edge

3D assets can be considered various materials necessary for creating 3D content. For creating extended reality (XR) projects, diverse 3D assets are required. HyperEZ owns a significant amount of these assets and has the trading platform PIE3D.

The company also possesses software technology that is accessible to beginners in 3D content creation, pursuing innovation in terms of cost.

HyperEZ holds over 100,000 3D processing data, its proprietary 3D design engine, and a network of over 300 partner 3D engineers and designers. The strengths of HyperEZ are the high quality and low cost of 3D data design, and the vast amount of data.

HyperEZ's Achievements and Future

Currently, HyperEZ is focusing on four industries related to 3D: gaming, media art, entertainment, and animation. The company is collaborating with enterprises and customers in these four sectors on various projects.

HyperEZ plans to develop and evolve solutions for creating diverse 3D content suitable for the rapidly advancing XR hardware market, going beyond traditional web, mobile, and console platforms.

For the growing market of XR hardware, HyperEZ plans to develop and evolve a range of 3D content creation solutions suitable for XR hardware beyond traditional web, mobile, and console.

ini SOLUTION

ini SOLUTION Operates a Personalized Dietary Coaching Platform for Gestational Diabetes Patients

Founded in July 2019, ini SOLUTION operates a personalized dietary coaching platform for gestational diabetes patients.

ini SOLUTION's 'eatco' service is a personalized coaching service for gestational diabetes patients to record their diet and manage their own diet.

eatco works by users taking photos of their food, after which AI technology recognizes the food and analyzes nutritional information. It also records and monitors individual eating habits. The eatco service is specialized for diabetes patients, who need to be mindful of their eating habits and find it challenging to record and analyze the foods they eat to find what suits them best.

Using the eatco service, patients can manage their diet based on dietary records and blood sugar management, alleviating the inconvenience of recording. Additionally, they can easily check the status of their diet management through infographics.

ini SOLUTION's Competitive Edge

As diabetes is a disease that can be accompanied by complications, it requires ultra-personalized dietary recommendations and constant management. Currently, ini SOLUTION is developing a model that can provide ultra-personalized curation of what foods to eat by analyzing data on food intake and blood sugar changes. Based on this, we are also developing a solution to manage blood sugar through eating habits analysis and consultation services.

ini SOLUTION's Achievements and Future

ini SOLUTION has been selected in 2023 for the Startup Leap Package program, a collaboration between the Health Industry Development Institute and Kyobo Life Insurance. The company is currently engaged in a government-supported project. ini SOLUTION plans to enhance its newly developed service model and expand its market by providing services for insurance customers in collaboration with life insurance companies. Additionally, they aim to advance their services for expansion into the digital therapeutics sector.

As a resident company of the Seoul AI Hub, ini SOLUTION is leveraging various programs and networks to facilitate corporate growth, cultivate professional personnel, and strengthen R&D capabilities.

MINING VIZLAB

Company MiningvizLab
CEO Park Sang-hyun
Key Product/Service Data Analyzer
Business Area Data Processing
Website miningvizlab.com

MiningvizLab, a Data Quality Management sSolution for AI training

'Data Analyzer' web page(MiningvizLab)

Founded in March 2021, MiningvizLab is a startup that supports data quality improvement throughout the entire cycle of AI model development. As of October 2023, it has attracted over 1.85 billion won in investment.

MiningvizLab's Data Analyzer is a solution that continuously verifies and manages the quality of data used for AI training. It addresses issues related to the quality of training datasets by analyzing the diversity, semantic accuracy, and validity of the data, which are directly linked to the performance of AI models. The solution also supports the development of purpose-fit AI models.
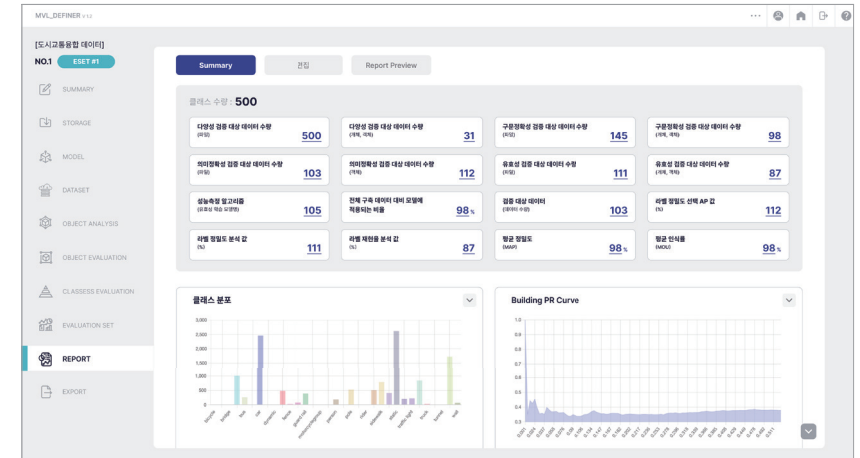
Data Analyzer applies optimized statistical processes to enhance dataset quality and provides a filtering capabilities based on the quality score of the data. This allows for the extraction of high-quality data, which can improve the performance of AI models. Low-scoring data can be reprocessed to enhance overall data quality, and the provision of quality inspection reports facilitates quick and easy verification of objective data quality.

MiningvizLab's Competitive Edge

MiningvizLab's Data Analyzer offers a fast and intuitive full inspection feature for entire datasets. This prevents potential errors and biases, such as generalization errors and distortions, that can occur from partial sample data extraction and verification.

It also supports a UI/UX that allows intuitive understanding of the entire dataset's quality and offers a keyword search function for the convenience of dataset information retrieval. Project-specific keywords can be used for efficient data file searches, supporting faster and more efficient data exploration.

The solution includes project separation features for data security, enabling the operation of unique and secure project spaces by completely separating project pages based on codes.

MiningvizLab's Achievements and Future

MiningvizLab has significantly reduced the resources consumed for data cleansing and quality verification, which account for up to 50% of the time and cost of AI projects, through the automation features of Data Analyzer.

Currently, the company is performing quality verification for autonomous driving and human motion data developed as part of the 'AI Learning Data Construction' project by the National Information society Agency(NIA). They plan to add various data references in the future.

Additionally, MiningvizLab is developing Data Analyzer 2.0, which incorporates generative AI and statistical models to enhance GT generation and verification results. With this product, the company plans to aggressively enter global markets, including Singapore, through its network with global partner companies, not just the domestic data quality market.

Pinot Lab

Company Pinot Lab
CEO Ahn Sung-won
Key Product/Service
Water Sommelier
Business Area Data Processing
Website pinotlab.com

The AI-based bottled water data comparative analysis platform 'Water Sommelier'(Pinot Lab)

Pinot Lab, AI-Based Bottled Water Data Comparison and Analysis Platform

Founded in June 2021, Pinot Lab is a company that develops the 'Water Sommelier,' a platform for comparing and analyzing bottled water data based on AI. The company has received 500 million won in seed investment.

Pinot Lab's main service is the 'Water Sommelier' platform. The platform performs functions like AI-based water recommendations, data comparison analysis, and water data processing. Currently, it collects data on over 1000 waters from 60 countries worldwide and provides taste and ingredient information. Additionally, Pinot Lab is building a community platform for major bottled water companies and water experts.

Pinot Lab's Competitive Edge

Previously, the bottled water industry faced challenges in gathering market data and consumer evaluations of water taste during product development and sales processes. To resolve this, Pinot Lab is refining its recommendation algorithm, which collects taste data by country, customer groups, and channel preferences to suggest preferred water tastes for targeted customer groups. Moreover, in the process of generating water data, Pinot Lab uses generative AI technology to automatically create water content and storytelling information through agents, without human content creation.

In particular, Pinot Lab has secured the world's highest level of water flavor, source, ingredients, and sales data for more than 1000 waters in 60 countries, and uses it to conduct external consulting and its own distribution business.

Pinot Lab's Achievements and Future

Pinot Lab provides major domestic and international importers and food & beverage companies with water data collected through the Water Sommelier platform and analyzed by AI, when there is a demand for new product development, new product importation, or marketing consulting.

The company offers branding consulting services tailored to different channels and customers and conducts a bottled water distribution business targeting B2B (hotels, restaurants) and B2C (VIP customers). Water Sommelier expects to triple its sales in 2023 compared to the previous year, following its first revenue in 2022.

As of 2023, the domestic bottled water market has grown to a massive size of 2.3 trillion won. Pinot Lab anticipates an increase in consumer demand for customized water purchases and a preference for premium water in the market.

Pinot Lab plans to expand its product development, marketing consulting, and direct distribution sales business based on the world's best water data and AI recommendation technology. Additionally, the company intends to expand its service area from water to beverages and alcoholic drinks.

SNE

에스앤이컴퍼니

AI Price Prediction Platform B·good Helps Ugly Fruits and Vegetables Find a Market

A B2B Forward Trading Platform for Ugly Fruits and Vegetables Based on AI Price Prediction "B·good" (SNE company)

SNE company is a startup that operates the B2B forward trading platform B·good for fruits and vegetables. It was founded in 2020.

B·good is a platform that helps "ugly fruits and vegetables" that cannot be graded because they are irregular in shape or size to be traded. The platform focuses on balanced profit, lowering prices while increasing the profits of producers by minimizing the process of trading between producers and consumers.

One of the features of B·good is "forward trading." Forward trading is a method of concluding a contract in advance and delivering the goods later, which requires high price prediction capabilities. SNE company has accumulated over 1.5 billion cases of big data and built a "data warehouse." By enhancing the "ensemble technique," the prediction capability has been improved. As a result, the performance of "D+30 day price prediction" for the top 10 fruit and vegetable products in terms of production value is an average error of 7-8%.

B·good's Unique Selling Points

Various B2C solutions have emerged for ugly fruits and vegetables, but B2B solutions targeting the food manufacturing and processing industry, which is the potential largest demand source, are still in a poor state. This is because it is not easy to apply the pre-order method of the B2B purchasing system based on the purchase budget due to the high price volatility of the agricultural auction market.

Based on its core technologies, B·good has transformed the distribution paradigm from the existing "pre-purchase" method of agricultural distribution to a "pre-order" structure and created a forward system. This allows you to purchase only the necessary specifications and quantities of ugly fruits and vegetables, unlike contract cultivation, where you have to purchase the entire harvest.

B·good's Achievements and Future

Since the launch of the B2B service in 2021, B·good has exceeded 1600 tons in cumulative trading volume and KRW 3 billion in sales by August 2023. It is also continuously expanding its transactions with companies such as the top 1 ODM (original design manufacturing) for strawberries, the top 1 OEM (original equipment manufacturing) for apples and pears, and the top 1 meat processing company in Korea. In particular, it has also established a supply network with more than 12000 farms, which is more than 1% of the total number of farms, in order to respond stably to the increasing demand.

In the future, it plans to diversify its revenue models from commodity trading to data trading and SaaS to increase its global scalability. Through this, it aims to achieve annual sales of KRW 100 billion by 2026.

SNPLAB
Security & Privacy Laboratory

Company SNPLab
CEO Lee Jae-young
Key Product/Service
my:D, ODM Pass
Business Area Data Processing
Website snplab.io

The personal data brokerage app 'my:D' mobile app image(SNPLab)

SNPLab, Providing MyData Service with Strong Security Features

Established in December 2019, SNPLab develops and operates services utilizing MyData. As of September 2023, it has attracted 3 billion won in Series A investment.

The main business models are the personal data brokerage app 'my:D' and the Personal Data as a Service (PDaaS) 'ODM Pass'. my:D helps businesses use individual data by utilizing personal data usage rights.

Through my:D, once a contract for the use of personal data is executed between a business and an individual, the business can use the approved personal data. The personal information is stored and managed by the individual, but businesses can freely use data for intended purposes.

ODM Pass is a heterogenous industry MyData platform solution that can be built immediately, targeting businesses and institutions rather than individuals. It enables unauthorized MyData businesses or institutions without a separate platform to offer their own MyData services.

SNPLab's solution utilizes LDP (Local Differential Privacy) technology, allowing the extraction of combined data statistics or securing raw data without collecting personal information.

SNPLab's Competitive Edge

SNPLab's solution has strong security features. During the operation of the solution, data usage and combination occur on the individual's device, not through a third party. This distributes security risks across individual devices, minimizing the risk associated with personal data use through device security alone.

Additionally, since data combination occurs on each individual's device and only for the owner's data, it minimizes the risk of privacy exposure.

SNPLab's Achievements and Future

SNPLab interprets that in the digital world, data sovereignty is individual sovereignty. With this perspective, the company strives to achieve its mission of building a sustainable personal information usage platform under the vision of 'a world where personal information becomes an individual's business'.

SNPLab plans to continue expanding a data-centric world for individuals through my:D and ODM Pass.

General

AI
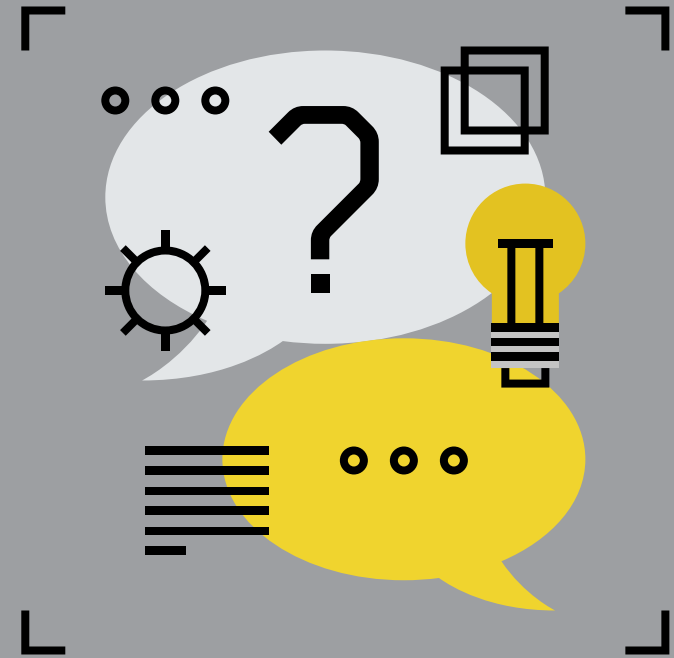
Workpad image(AcrossB)

AcrossB Operates Logistics Service to Aid E-commerce Businesses in Expanding Overseas

Established in May 2020, AcrossB operates a cross-border e-commerce logistics platform. It provides a smart logistics system based on data analysis using deep learning technology and has received a a total of 3 billion won in investment.
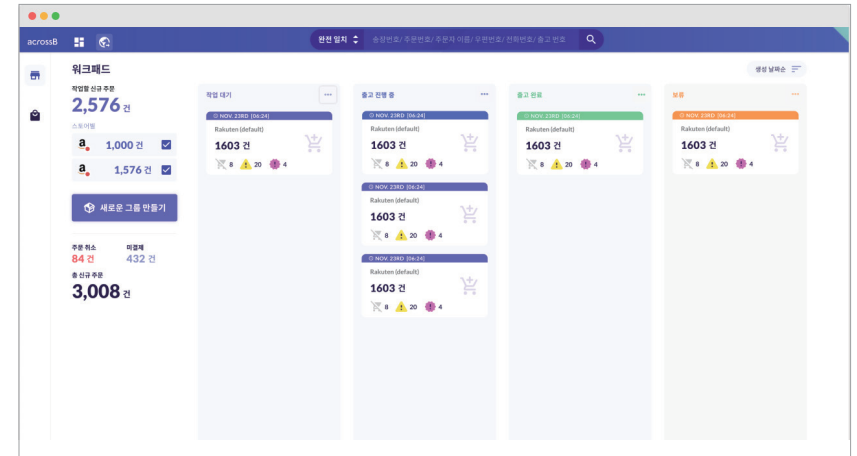
AcrossB operates a 'cross-border e-commerce logistics platform' utilizing process automation and inventory optimization. It supports complete logistics services for e-commerce companies looking to expand overseas. Using a digital platform, it integrates orders and inventory from multi-sales channels, selects and provides the most diversified and optimal shipping services according to cargo and regional characteristics, handles local returns, and customer service (CS) related to logistics. Furthermore, it utilizes machine learning technology for demand forecasting and optimization of inventory, shipping, and costs.

AcrossB's Competitive Edge

Previously, handling cross-border e-commerce logistics involved high shipping costs and excessive operational input due to multiple Excel and documentation works. This process faced challenges in complex customs, CS, return processing, sales demand forecasting, and appropriate inventory calculation.

In contrast, AcrossB reduces costs by configuring the optimal combination of transportation methods, shipping companies, and warehouses according to cargo conditions and regions. It automates processes through rule engines and API integration, uses machine learning for demand forecasting and inventory optimization, and provides services to reduce cost wastage and missed sales opportunities.

Key examples include ▲Utilizing various global transportation methods by delivery region ▲Global inventory forward positioning through overseas warehouse connections ▲Sales data analysis for promotions and demand forecasting ▲Analyzing appropriate inventory, sales speed, and production lead time to recommend production ordering times.

AcrossB's Achievements and Future

AcrossB has been selected for programs like the Ministry of SMEs and Startups TIPS, KDB NextOne, KODIT First Penguin, and Nvidia's global cooperation program N-UP. Selected to join the Seoul AI Hub in March 2021, the company is focusing on commercializing its machine learning models by taking advantage of the various training, research support, and networking opportunities offered by the institution.

Currently, acrossB provides overseas logistics services for major cross-border e-commerce companies like Shinsegae International, CREAM, COSRX, Clio, and Nature Republic. In the future, it plans to establish overseas corporations in the USA and Japan to form a cross-border e-commerce block ecosystem centered around East Asia.services.

AIM > FUTURE

Company AIM FUTURE
CEO Kim Chang-soo
Key Product/Service
NPU accelerator hardware 'Neuro
MosAlc Processor'
Business Area General AI
Website aimfuture.ai

**AIM FUTURE Develops Essential
NPU Acceleration and Operation
Solution for AI Processing**

The NPU(Neural Processing Unit) IP structure of AIM FUTURE(AIM FUTURE)

Founded in October 2020, AIM FUTURE is a company supplying NPU (Neural Processing Unit) accelerator hardware in the form of IP, essential for AI processing. The company raised 8.2 billion won in Series A funding.

AIM FUTURE offers the NPU accelerator hardware 'NeuroMosAlc Processor' and its operating software 'NeuroMosAlc SUidio'. These solutions enable efficient processing of deep learning models in the field of computer vision.

NPU, known as Neural Processing Units, are specialized system semiconductors for AI processing, handling learning and inference in machine learning and deep learning. It processes data and performs calculations faster than CPU or GPU while consuming less power.
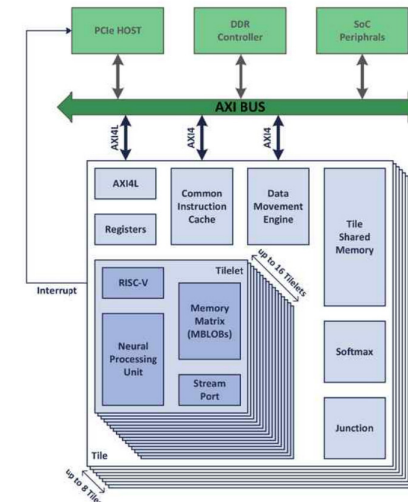
AIM FUTURE's NeuroMosaic hardware processors include the NMP-300, NMP-500, and NMP-700 series. Their hardware and software solutions provide AI semiconductor design assets that meet performance, power consumption, and cost conditions for applications ranging from low-performance devices to high-performance autonomous driving edge infrastructures.

AIM FUTURE's
Competitive Edge

AIM FUTURE's SDK (Software Development Kit) supports various software frameworks like Cafe, TensorFlow, PyTorch, and Keras. It also provides profiling information such as accuracy, performance, memory bandwidth, and runtime. The SDK converts various trained models into RISC-V binaries for efficient operation on the target hardware.

AIM FUTURE's solutions have scalability to meet diverse performance requirements, flexibility to dynamically handle various tasks, and configurability to support optimal hardware combinations.

AIM FUTURE's
Achievements and Future

Currently, AIM FUTURE's solutions are used in LG Electronics' robotic vacuum cleaners in chip form for object recognition. They are also used in 4K TV to perform super-resolution algorithms (converting low-resolution video to high-resolution) for image quality improvement.

AIM FUTURE is preparing a new product based on a new architecture named GAIA, aiming to offer higher performance with lower power consumption and area compared to existing NPU.

The company expects to complete the design of the hardware IP in 2023, and the SDK to support it will be available in the first half of 2024.

Additionally, through MPW chip production, AIM FUTURE plans to validate its NPU IP in silicon, targeting high-performance applications such as robotics, AR/VR, and automotive infotainment systems. The goal is to support performance around 32 TOPS using high-end processes like Samsung or TSMC 7nm or higher.

AMSquare
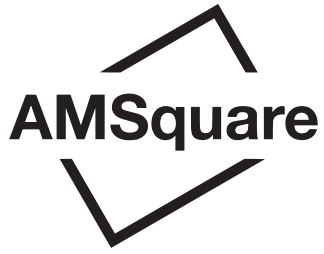
AMSquare Provides Solutions for Maintaining and Managing AI Model Performance

ML Performance Management Solution(AMSquare)

Founded in March 2019, AMSquare is a company that develops solutions to maintain and manage the performance of AI models.

AMSquare possesses technology that estimates the performance of AI models and the health of their pipelines in real-time. This allows managers to monitor the performance trends of AI models in real-time.

Additionally, by estimating the health of AI models' pipelines, it is possible to identify which part of the pipeline is experiencing issues and diagnose the causes of performance degradation in AI models. If data drift or model drift occurs, it will be detected early and notified to the user.

AMSquare's Competitive Edge

The existing MLOps (Machine Learning Operations) solutions offered by big tech companies were expensive and required substantial prior knowledge. In contrast, AMSquare's solution is compact in size, containing only the essential features needed for maintaining and managing AI models. In addition, AMSquare's solution has a simple but essential UI that users can use intuitively without learning, through a user-friendly interface design.

AMSquare's Achievements and Future

Currently, AMSquare's solution has been applied as a prototype in some steel manufacturing companies' subduction finishing processes for recommending user setting values.

AMSquare's solution can be applied to both newly constructed AI models and already established models. In the future, the company plans to refine their solution to be more user-friendly and make model management even easier by incorporating features requested by clients.

Bobidi

Financial AI assistant 'BullGPT'(Bobidi)

Bobidi Provides Financial AI Assistant to Help with Corporate Analysis

Founded in July 2021, Bobidi operates a platform that builds AI models based on a community. It has received an investment of 7.5 billion won so far.

Bobidi offers a financial AI assistant, 'BullGPT', which utilizes generative AI to collect various corporate disclosure documents, including financial statements, to efficiently analyze companies. BullGPT is a technology that compiles or reprocesses various corporate disclosure contents, such as a company's financial statements, order status, related parties, contingent liabilities, and changes in major shareholders, into a single database.
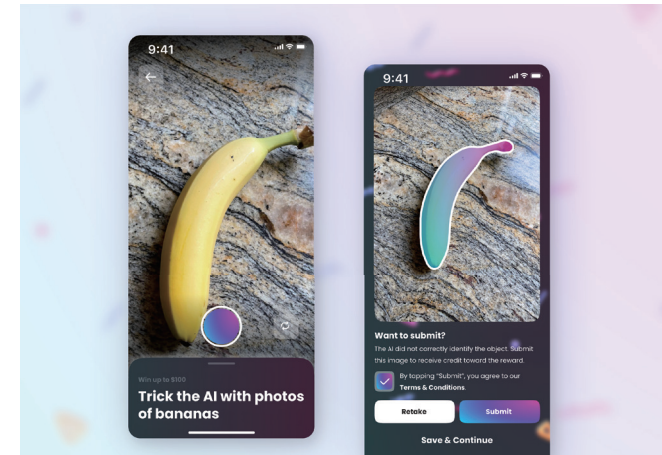
It processes and analyzes data according to the user's preferences and can even draft analysis reports if needed. This automates the tasks financial professionals like credit ratings agencies and fund managers used to do manually, allowing them to focus more time and effort on more important tasks.

Bobidi's Competitive Edge

Bobidi's BullGPT is specialized in collecting, reprocessing, and quickly producing the necessary analysis materials by combining generative AI with crawling and search technologies. It also achieves ultra-lightweight models compared to existing recognition models, eliminating hardware and environmental constraints and providing services unrestricted by time and space.

Since it is based on publicly available unstructured data (disclosure data, websites, etc.) and does not use internal corporate data, there are no security concerns. For example, it can quickly identify that an increase in management costs at a factory of a company located overseas is due to a temporary increase in electricity prices in that country.

Bobidi's Achievements and Future

Currently, Bobidi provides services specialized in corporate disclosure data, but based on its own technology, it is preparing to expand into various fields such as investment, finance, and taxation. Bobidi's service specializes in reprocessing and analyzing data represented in numbers and tables. It can quickly read tax policies and plan tax-saving measures for companies, or combine corporate disclosure data with Statistics Korea data, related news, and U.S. corporate disclosure data (EDGAR) for complex comparative analysis to assist in investment decisions.

The goal is to provide customized services that maximize automation and efficiency of financial companies' tasks by linking with various unique data, internal policies, and payment information of financial companies, and to discover the hidden value of data.

Bobidi is also preparing to implement its technology as an API, adding it to the internal services of existing financial companies. It is expected to open the way for many financial companies to adopt generative AI without significantly changing their existing internal services.

Croft

Anyone can grow

Croft's AI Greenhouse System Could Revolutionize Crop Farming

AI Algorithm for Crop Monitoring(Croft)

Croft is a startup in the smart farming field founded in July 2022. It is developing an "AI greenhouse autonomous system" that uses artificial intelligence (AI) technology to grow crops. It has raised 400 million won(KRW) in seed funding so far.
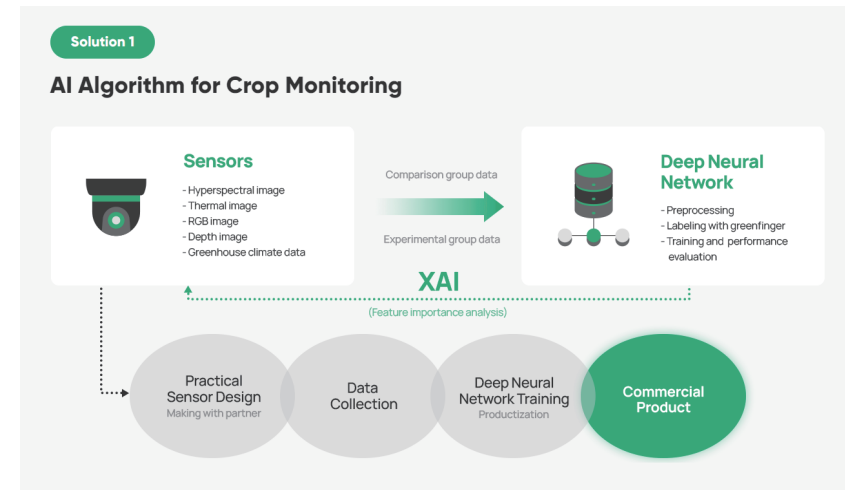
Croft's core technology is to use AI to observe crops, understand their condition, and control the greenhouse based on that information to create an optimal greenhouse environment for the crops. In the past, experts called growers provided optimal greenhouse conditions based on their experience, but this technology allows people with no agricultural knowledge to grow crops optimally through an AI-based smart greenhouse autonomous control system.

AI Controls Plants by Actually Looking at Them with Sensors

Croft's solution is different from other solutions in that it uses various image sensors to actually look at the plants and control them. It is important to control the greenhouse environment by actually looking at the plants, as it would be inefficient to control it based on theory without looking at the plants.

It takes a lot of time, data, and verification for AI to fully control the greenhouse autonomously. Croft is developing the system in three phases. The first phase is collecting and processing greenhouse data. This will allow the company to provide services that provide users with the information they need to manage their greenhouses. The company is currently developing the first phase.

The second phase is a technology that allows AI to partially control the greenhouse. It will be linked to the greenhouse management app developed earlier to provide information and knowledge needed for greenhouse control, and will perform partial greenhouse control after user confirmation. For example, it will control the greenhouse temperature, heater, and equipment.

The third phase is a technology that allows AI to automatically control the entire greenhouse. This technology-based AI agent will assess the crop condition, greenhouse condition, and financial situation (energy/raw material prices, crop selling prices, cultivation costs, etc.) to develop a cultivation strategy that maximizes greenhouse profits and control the greenhouse.

Croft's Achievements and Future

Croft has already been recognized for its AI-based greenhouse autonomous control technology in the Netherlands. Based on this technological competitiveness, the company plans to complete the first-phase development by the end of this year, launch the greenhouse management app (based on GPT), and start the service.

By 2025, the company plans to develop "AI-based partial greenhouse control" and "AI-based complete greenhouse control" technologies in sequence, and then design a standardized greenhouse where AI can perform at its best.

GROUND1's image-based BIM automatic generation solution 'NexStruct AI' running image(GROUND1)

GROUND1's NexStruct AI: The Future of 3D Building Information Modeling

GROUND1's 'NexStruct AI' is a service that analyzes buildings using AI vision technology and generates them as 3D BIM(Building Information Modeling).

It has the ability to analyze images of buildings on the entire exterior of buildings as well as architectural drawings. It not only identifies building information objects based on the BIM library, but also recognizes basic information that corresponds to the reality of the building, such as the number of floors and height of the building, and visualizes the digital building by combining it with three-dimensional spatial information.
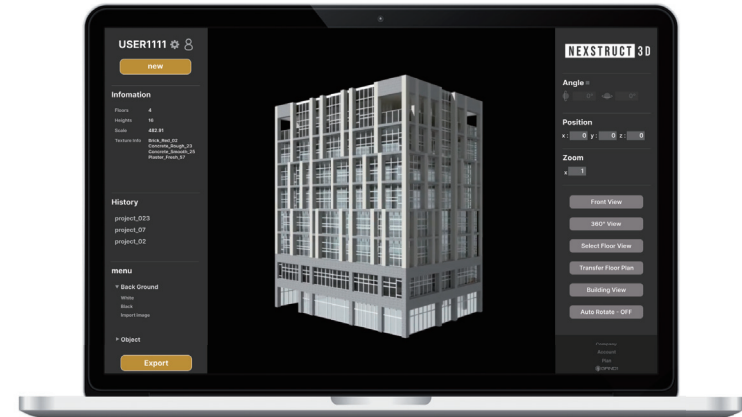
Competitive Edge of NexStruct AI

The most common way to create BIM is to create it from drawings by adding functional elements from the authoring tool. Recently, it is also created through 3D scanner equipment.

On the other hand, NexStruct AI identifies building information of existing buildings from building images without the help of drawings or equipment, and creates drawings and visualizes them. This is because the space analysis and measurement technologies were developed together by taking advantage of the characteristics of the AI model that is specialized for buildings.

Visualized building information is also very important in the construction industry. In 2025, BIM design methods will be mandatory, starting with public institutions, requiring a significant amount of resources for design work. In this case, if NexStruct AI is applied, it can greatly improve productivity and efficiency in the early stages of BIM authorship.

NexStruct AI is highly compatible and portable because it automatically provides object recognition according to the standardizing BIM library. In a recent accuracy test of AI models by a certified certification agency, it was predicted that building information object identification can be accurately predicted at over 99%.

GROUND1's Achievements and Future

GROUND1 approached the structural problem of high cost burden in digitalizing buildings with its own technology, and was recognized for its achievements and received the Korea Excellent Patent Award.

Currently, GROUND1 plans to focus more on commercializing NexStruct AI as a customer-centric service. In the future, it plans to complete the BIM automatic design AI engine to minimize the possibility of errors and help users work more conveniently.

In addition, it plans to release 'Lev0', a content service that easily and quickly creates building 3D, on the day of its establishment.

Lev0 allows anyone, even if they are not a graphics expert, to easily create a 3D building of their choice. It can be used in creative platforms such as Roblox, so you can directly own and use the content. It is a strategy to be used as an educational tool for beginners to effectively learn the basics of architectural design through Lev0, which has a wide accessibility.

injewelme

Injewelme, a Deep Learning-Based Gamified Health Management Platform Company

Injewelme's gamified health management solution 'Wouldudoit'(Injewelme)

Injewelme, a startup established in 2020, operates a gamified health management solution based on deep learning predictions.

Injewelme's digital healthcare solution 'Wouldudoit' has been launched for children and adolescents in the post-COVID era. It provides personalized healthcare like a game based on big data, and cultivates health habits in daily life based on continuous use and voluntary participation through customized content and rewards.

It also provides an integrated solution that builds a preventive healthcare system online and offline by linking with parents and communities.
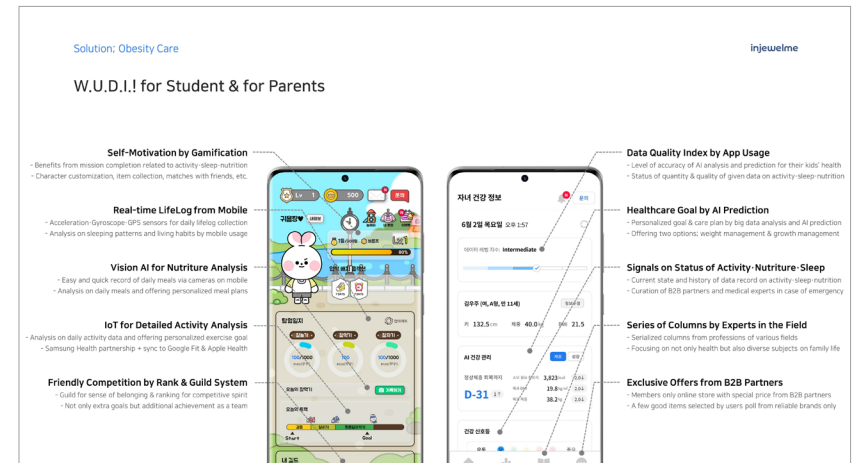
Injewelme's Competitive Edge

The unique point of Wouldudoit is its motivational and sustained usability through gamification. It's noteworthy that the service gamifies actual therapeutic techniques advised by professionals and psychologists and offers preventive health management based on AI and big data. Additionally, it shares data with parents, local communities, and partner companies to realize comprehensive management linked between online and offline (O2O).

Injewelme's Achievements and Future

Injewelme has conducted a total of four empirical studies on obesity management domestically. They also participate in the National Sports Promotion Organization, Jeollanam-do Education Support Service, and Jeju Island Childhood Obesity Management Project. More than 50 elementary schools nationwide, with more than 3,000 users, are using the obesity management service (as of October 2023).

Internationally, Injewelme has submitted two international papers on the utilization of deep learning-based prediction technology and was invited to participate in international events such as 'CHI Innovate 2023' and 'Big Data & AI World 2023' in Singapore. Injewelme is currently piloting with a national enterprise under an NDA.

Injewelme aims to expand globally in the Asian market, including Singapore, with its obesity management and mental health services, and to evolve into a business of digital therapeutics. Furthermore, the company plans to expand its service areas to eye and skin care, aiming to become Asia's largest children and adolescents' health big data platform within five years.

Kaier

Company Kaier
CEO Lee Kyo-hyuk
Key Product/Service KAI.S
Business Area General AI
Website kaier.co.kr

Kaier offers a 'One-click AI automation' solution(Kaier)

Kaier Supports One-Click AI Project Setup without Security Breach Concerns

Founded in November 2019, Kaier offers a 'One-click AI automation' solution that automatically trains top-performing AI models within 15 hours with just one click.

Kaier's one-click AI automation solution can be operated on a single GPU, which is cost-effective in terms of hardware investment. And because the solution can be installed and used on computers located inside the client's office, there is no risk of the client's data being leaked externally.

Kaier's Competitive Edge

Kaier's one-click AI automation solution is easy to operate, eliminating the need for AI experts in executing AI projects. This means that application domain experts who own the data can independently conduct AI projects without the assistance of AI experts, allowing simultaneous execution of AI projects in multiple fields.

Furthermore, the solution enables the cost-effective and efficient application of AI models in various areas, accelerating digital transformation for businesses.

Kaier's Achievements and Future

Kaier has reduced development time to less than one-third of the original duration by detecting fine defects that previous technologies couldn't identify and quickly training high-performing AI models. It has also simplified and automated operational processes, such as automatically searching for optimal process parameters, which were traditionally done by humans, thus exceeding the limitations of existing technologies.

Kaier's solution is currently being applied in various industries, starting with smart factories and infrastructure operations. In fact, Kaier's solutions are used by Major domestic conglomerates like Samsung, LG, DB, and Samyang for manufacturing defect detection, analysis of process faults, process optimization, and process improvement.

Kaier plans to expand its application scope to various industries, including finance, healthcare, autonomous driving, and defense. The company aspires to adopt its one-click AI automation solution technology in all AI projects, accelerating industrial intelligence and digital transformation.

![manned&unmanned logo]

Company Manned Unmanned
CEO Choi Hong-seop
Key Product/Service
VIM (Video Intelligence Model)
Business Area General AI
Website unmd.ai

With the addition of just a few hundred data samples, the performance is expected to improve significantly.

Manned Unmanned
"Linguistically Understanding Video to Find What You're Looking For"

Founded in May 2022, Manned Unmanned possesses artificial neural network technology capable of analyzing videos in a general-purpose, multimodal, multi-task manner.

Manned Unmanned has developed the multimodal foundational model 'VIM (Video Intelligence Model)'. It understands videos linguistically and processes user requests, enabling users to receive results as text generation.

For example, if a user inputs "Find the CCTV scene with a girl wearing a bunny headband", it understands the meaning of the sentence and finds the desired scene from the CCTV video. VIM essentially supports multitasking, so beyond search functionality like in this example, it can be used for describing given video or image, ask questions, etc.

Manned Unmanned's Competitive Edge

Manned Unmanned owns TIS technology, which can compress video inputs by tens of times. Additionally, their solution, VIM, has the advantage of responding to various user needs.

Traditional video analysis technologies were limited to specific domains and tasks, using 'task-specific models', making it difficult to respond to the diverse needs of users. VIM can perform any task within the range of human video understanding capabilities, according to customer demands.

Representative use cases include ▲Searching for people or objects of a certain color, shape, or appearance ▲Searching for a desired scene in a video owned by a broadcaster or personal video editor (reducing search

time) ▲Summarizing not only the object but also the entire situation in the video ▲Extracting high-quality information from the video through the question function. These features help users save time.

Manned Unmanned's Achievements and Future

The use of Manned Unmanned's VIM is not limited to CCTV video analysis. Manned Unmanned goals to train VIM with all the common sense needed to see and interpret, aiming for a general-purpose foundational model. The ultimate plan is to use this model for autonomous driving and general-purpose service robot control.

For this, Manned Unmanned will first learn the concepts of people and objects, and gradually teach people and objects interaction in complex situations, questions and answers, etc.

MOVIC Lab

MOVIC Lab, Ultrasonic Acoustic Data Is Used To Predict The Failure Of Equipment

The Watchbat monitoring screen of Mobic Lab. WatchBat is a service that diagnoses failures through accurate analysis of acoustic sound data based on AI(MOVIC Lab)

MOVIC Lab is a South Korean startup founded in 2017 that provides a service that uses artificial intelligence(AI) to diagnose equipment failures by utilizing ultrasonic acoustic signals from the noise generated by equipment. MOVIC Lab has AI edge devices that can collect ultrasonic sound data in the widest range possible, and AI solutions that can monitor equipment malfunction detection.

MOVIC Lab's 'WatchBat' is a service that diagnoses failures through accurate analysis of acoustic sound data based on AI. WatchBat can be used to detect equipment malfunction signals, identify the cause of equipment malfunctions, and develop a remaining life prediction algorithm.

WatchBat analyzes ultrasonic acoustic signals in the ultrasonic frequency range of noise and vibration, which are signs of equipment malfunction. It also removes 'Non-Target' signals from professional sound signal processing technologies, and then detects the abnormal/normal operation of the equipment through unsupervised learning.

Watchbat's Competitive Edge

In order for a failure diagnosis service to perform well, it needs to use expensive vibration sensors. On the other hand, WatchBat can achieve high performance while using low-cost vibration sensors. In addition, sensors can be installed non-contact, making it possible to use them for a variety of equipment.

WatchBat can analyze sensor data based on AI, so it is possible to perform accurate analysis. MLOps (MLOps) is introduced so that anyone can easily apply AI technology to the field.

Representative use cases include ▲identifying the wear rate of cutter blades in cutter facilities using ultrasonic sensors ▲detecting abnormal operation of bearings by measuring ultrasonic waves generated by bearings ▲detecting abnormal operation of bearings by measuring ultrasonic waves generated by bearings ▲detecting abnormal operation of vacuum pumps by measuring ultrasonic waves generated by non-contact ultrasonic sensors ▲detecting abnormal operation of ultrasonic welding machines by utilizing ultrasonic sensors to reduce the quality defect rate.

Mobic Lab's Achievements and Future

MOVIC Lab was selected as an excellent supplier in the 'AI Voucher Support Project' led by the NIPA(National IT Industry Promotion Agency) in 2022. In October 2023, MOVIC Lab was selected to move into 'Seoul AI Hub', and moved its corporate research institute, which was previously located in Incheon, to Yangjae.

MOVIC Lab is conducting technology verification for various equipment in Korea and overseas, focusing on battery and display processes. Through the expansion of this technology verification, MOVIC Lab plans to expand into the B2C market, such as the safety field, car diagnosis, and home appliance diagnosis, in addition to the manufacturing field market.

Nation A

Company NationA
CEO Yoo Soo-yeon
Key Product/Service
AI-powered content SaaS "Neuroid"
Business Area General AI
Website nation-a.com

AI-powered content SaaS "Neuroid"(NationA)

NationA Develops Generative AI-powered Content SaaS 'Neuroid'

NationA is a startup founded in March 2022. The company has been recognized for its team's expertise in the AI field for many years, and has raised seed funding and been selected for TIPS(Tech Incubator Program for Startups) shortly after its founding, proving its technological capabilities and growth potential.

Neuroid developed by NationA is a 3D/4D motion content service that uses generative AI technology and is provided as a SaaS(Software as a Service). Neuroid supports the rapid generation of 3D data based on prompts without expensive camera equipment.
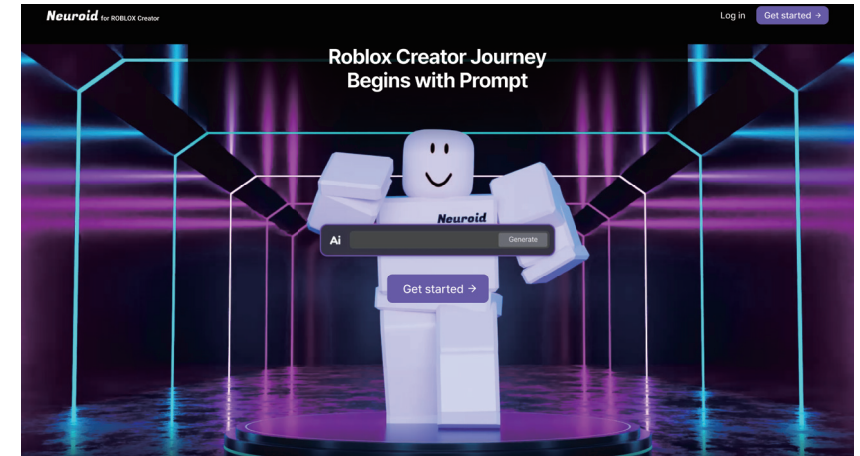
3D content production requires not only expertise but also a lot of time. In addition to manual costs, the use of special equipment for motion capture, etc., incurs a lot of costs. Neuroid helps anyone to easily and quickly create 3D content. In particular, it has attracted the attention of global users since before the service launch, as it provides a function that supports the creation of 3D animation by entering only text.

Technologies Applied to Neuroid

Neuroid incorporates technologies such as VTM(Video-to-Motion) and TTM(Text-to-Motion). VTM accurately converts 2D motion from video to 3D, and TTM is a technology that converts written text into visual data using generative AI. In particular, TTM uses a sophisticated 3D data warehouse to extract keywords based on the description and complete the motion that matches the context.

Due to these differences, Neuroid is more competitive than existing models' video motion generation services in that it can produce results quickly and significantly reduce operating costs. It also supports a standard model that can be compatible with all 3D software tools, and has the advantage of being able to quickly use the service without coding.

Surpassed 500,000 Subscribers in 7 Days after Release

NationA released Neuroid in October 2023, and surpassed 500,000 subscribers in seven days. NationA analyzed that the number of subscribers quickly increased after the launch of Neuroid, as it became popular among users of Roblox, a platform for developing 3D games, and began to spread by word of mouth.

NationA plans to accelerate its pace to surpass 1 million accumulated subscribers of Neuroid in October and achieve 10 million users by the end of the year. The company aims to expand its target market by improving the service to become a 3D content service that can be applied to a variety of customers in the future.

NETLOX

Company Netlox
CEO Kong Seok-hwan,
Yim Jae-hong
Key Product/Service
Networking solution "LoxiLB"
Business Area General AI
Website netlox.io

Netlox Provides Networking Solutions for Secure Cloud Environments

The structure of Cloud Native Network Platform "LoxiLB"(Netlox)

Netlox, founded in July 2020, is a startup that develops the optimal cloud-native network platform. Netlox aims to enable the existing networking, security, and visibility infrastructure environments to be seamlessly and securely expanded to multi-clouds through the construction of the next-generation cloud environment.

LoxiLB is a solution that provides performance improvement of networking and security functions of cloud-native AI services by utilizing eBPF (extended Berkeley Packet Filter), a next-generation kernel technology. For reference, eBPF supports networking, monitoring, and security functions.
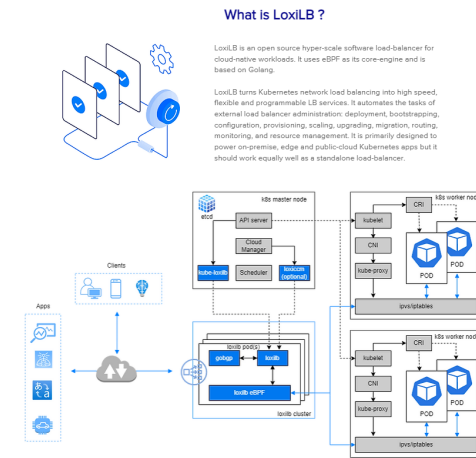
LoxiLB provides standard connection technology with cloud-native (Kubernetes) based AI services, so there are no compatibility issues. It

also secures end-to-end visibility and security of AI services using intelligent telemetry technology.

Through these advantages, it provides quality improvement and visibility of large-volume ultra-low latency services such as augmented reality (AR), virtual reality (VR), and metaverse. It also provides MLOps environments through public, private, and edge clouds.

Key Features of "LoxiLB"

LoxiLB shows 20% or more improvement in network performance and CPU resource utilization compared to existing ones by accelerating the networking and security performance of cloud-native AI services. It also provides operational convenience and service stability by providing intelligent telemetry and observability for AI services (logging,

metrics, tracing).

LoxiLB is open source and free to use.

Netlox's Achievements and Future

Netlox plans to continue to expand its users through the open source community. After the ongoing corporate PoC (proof of concept) is completed, it plans to operate customer support services through channel acquisition.

LoxiLB is continuously developing services to collect and visualize infrastructure information for cloud-native AI services (logging, tracing, metrics). It also aims to be registered in the sandbox of CNCF (Cloud Native Computing Foundation) by operating an open source community to compete with global companies. The ultimate goal is to grow it into

a reliable AI service platform that investors can trust.

LoxiLB is also planning to provide SaaS (software as a service) type solutions for global businesses through public cloud providers (AWS, NHN, Naver, etc.).

Company   O2O
CEO   Ahn Sung-min
Key Product/Service
Metadata-based AI Recommendation System
Business Area   General AI
Website   o2o.kr

O2O Provides AI Recommendation Systems Across Various Domains Using Metadata

Metadata-based AI recommendation system process(O2O)

Founded in August 2017, O2O is a company that develops AI recommendation systems using metadata. The company has attracted 1 billion won in Series A investment.

O2O develops systems that recommend, search, and curate content based on LLM (Large Language Model) and prompt engineering.

By analyzing the user's content viewing history and preferences, O2O obtains user-specific taste analysis data. Based on this data, O2O operates a generative curation recommendation service that provides customized content to users.

In this process, O2O expands the crawling range and collects data continuously for a period of time for new content to build high-quality data. In addition, LLM technology is added to the 'KeyBERT' method of extracting keywords from text to extract and classify meta-knowledge with high accuracy.

O2O is expanding its metadata construction model to various domains such as books, music records, advertising, and home shopping. It builds meta-knowledge according to the domain and provides analysis-based curation services according to user preferences.

O2O's Competitive Edge
O2O's service has the advantage of being able to stably collect meta-information through a 'meta-knowledge extraction system'. They can secure a variety of meta-knowledge based on optimized prompt and LLM, and their automated meta-knowledge extraction system facilitates the updating of trends and customer feedback. This enables them to quickly compose recommendation categories by calculating the similarity between real-time issues and contents.

Also, O2O uses its patented method of processing big data-based user preference information, eliminating the possibility of copyright or patent infringement.

O2O's Achievements and Future
Currently, O2O is selling its metadata-based AI recommendation system to set-top box companies. They are conducting a technology verification (PoC) with 'KT Skylife', a domestic pay-TV operator, using 'Curation Service Utilizing Media Data's Meta-Knowledge'. O2O was also selected as a partner in KT's core business area, the media sector, and exhibited their solution at the IBC exhibition in September 2023 as a partner of KT.

O2O plans to expand its meta-knowledge construction model to various domains such as books, music, advertising, home shopping, etc., and provide a curation service based on user preference analysis in the future.

SmartMind, ThanoSQL 'Build AI models with innovative DB system for non-experts'

SmartMind's AI modeling platform 'ThanoSQL'(SmartMind)

Founded in 2018, SmartMind is in the process of raising Pre-A funding as of October 2023.

SmartMind develops and supplies ThanoSQL, which enables unstructured data to be tabulated in the same way as structured data, and enables big data processing to AI modeling, operation, and deployment using only SQL.

In the era of new innovations led by AI like ChatGPT, most companies are unable to adopt AI models due to the lack of experts. What if high-performance AI solutions were as easy for non-technical users to use as Excel? SmartMinds created ThanoSQL to make it easier and faster to bring AI into the workplace.
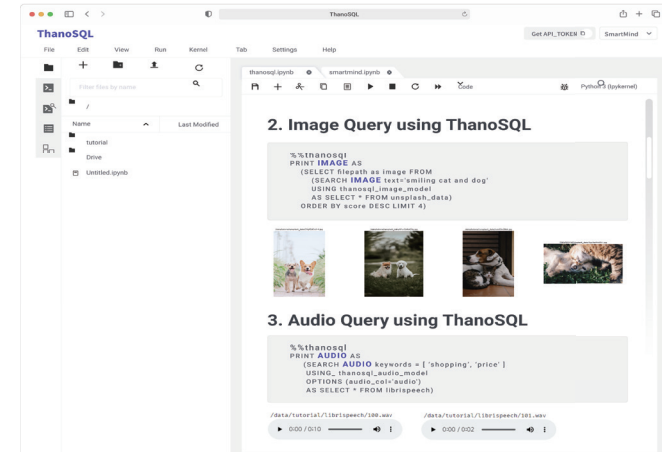
SmartMind's Competitive Edge

SmartMind's ThanoSQL is an innovative AI platform that makes it easy to analyze unstructured data like structured data, from AI modeling to deployment in operations.

Building a system for analyzing unstructured big data requires complex frameworks and various languages. Such system development often ends as a one-time project, making it practically impossible to respond to new requirements. Moreover, each data format needs a separate management system, leading to system discontinuity. Continuous manpower and cost investment are also inevitable for system operation and maintenance.

To solve these problems, ThanoSQL uses patented technology to vectorize (structure) unstructured data (text, images, audio, video, IoT, etc.) and store it in an RDB (Relational DataBase) in the same manner as structured data. Thus, ThanoSQL allows the use of both structured and unstructured data indistinctly on a single platform. It implements AI modeling using just SQL, enabling non-experts to easily build and apply AI models in operations. It can also be easily connected to existing systems using APIs.

SmartMind's Achievements and Future

ThanoSQL eliminates data disconnection between AI solutions, enabling organic connectivity and flexible expansion. Therefore, it can be applied to all industries regardless of the sector or data type, featuring infinite scalability. With these unique features, ThanoSQL is successfully supporting digital transformation across various industry areas including manufacturing, steelmaking, shipping, energy, hospitals, healthcare, cosmetics, apparel, and finance.

Notably, ThanoSQL has secured a subscription contract with Samsung Display and is receiving positive responses in the market. Samchully and Shinhan Card are also utilizing ThanoSQL. Having validated its technology, SmartMind plans to aggressively expand its sales. In addition to quantitative growth, companies also want to drive qualitative growth by enhancing ThanoSQL.

STRA's Lyspeak, "Foreigners Can Also Learn K-pop Easily"

K-pop song app 'Lyspeak' mobile app page(STRA)

STRA is a company that develops apps that use artificial intelligence(AI) to convert K-pop song lyrics into alphabets. The company was founded in May 2021 and has raised a cumulative seed investment of 130 million won so far.
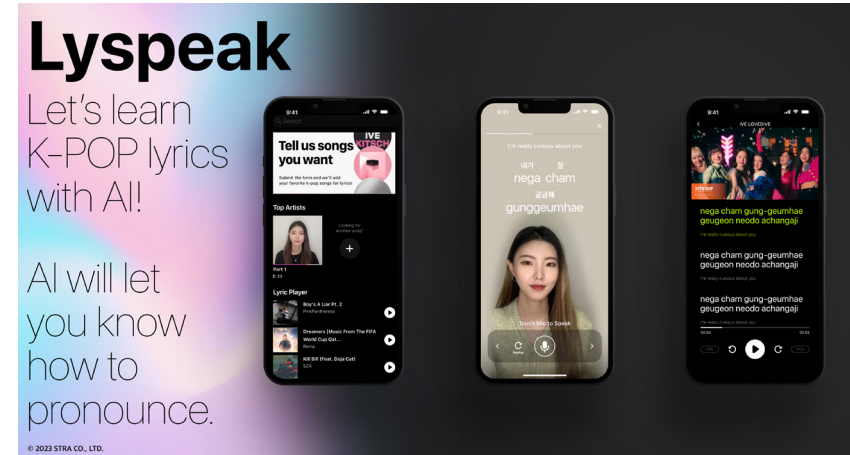
STRA's 'Lyspeak' is a K-pop song app for foreigners. Lyspeak provides Romanized lyrics for overseas K-pop fans who find it difficult to follow Korean lyrics. It also offers a 'Lesson' function that allows users to practice by singing along with the lyrics in real time, while a professional K-pop trainer explains each verse in English.

STRA also owns an 'AI music notation solution'. This solution can draw digital sheet music by analyzing MP3 files of any song to detect codes, melodies, bars, BPM, etc. The company recently signed a supply contract with an educational company to use the solution to automatically create digital music textbooks. In 2023, through the R&D project of Daegu City, the company also succeeded in developing a technology to extract MIDI files by separating each instrument, such as guitar, bass, drums, and piano.

Lyspeak Records 100,000 Downloads in Four Months after Lunch

Lyspeak has a unique positioning that combines the characteristics of a Korean language education app and a karaoke app, making it possible for users to have fun while learning. Launched in May 2023, Lyspeak surpassed 100,000 cumulative downloads in four months and reached 35,000 monthly users. In addition, 90% of the users are teenage girls from overseas, and it is actively used in India, Brazil, Turkey, Southeast Asia, and the United States.

The AI music notation technology is currently used in the edutech industry for sheet music production. In the future, it is expected to be used by accompaniment production companies such as Taejin and Kumyoung, or by many music hobbyists and musicians who have learned to play by listening to their ears due to their lack of musical talent.

STRA's Achievements and Future

In September 2023, STRA was selected for the Ministry of SMEs and Startups TIPS(Tech Incubator Program for Startup) and will be conducting a two-year research project on the development of a 'multilingual lyrics education system'. This technology will allow AI to analyze any song to extract lyrics and translate the sound and meaning so that users from multiple countries can follow them. STRA plans to use this technology to enhance Lyspeak. In addition, the company plans to expand the content limit, which is currently at around 2,000 songs, to unlimited access through this technology.

STRA also plans to expand its services to other countries around the world. From 2024, it plans to provide the app in the local languages of K-pop popular countries such as Japanese, Chinese, Spanish, and Hindi.

Valla lab.

Company The Valla
CEO Yim Kwan-ryung,
Lee Jong-kwon
Key Product/Service
VALLA Lab Application
Business Area General AI
Website valla.kr

The Valla, offers AI-Based Beauty Content Recommendation and Cosmetic Curation Services

Established in April 2018, The Valla is a company that aims to innovate the beauty industry with AI technology, developing and operating the video image processing AI and the 'VALLA' platform. It has attracted a cumulative investment of 1.9 billion won in pre-A funding.

The Valla is a company that innovates the beauty industry using AI technology. Core features of The Valla include makeup video content curation best suited for the user, personalized cosmetic curation, makeup artist matching, online personal color diagnosis, and more.

The AI technologies developed and used by The Valla include Data Collection & Classification, Video Analytics, Recommendation, Face Recognition & Analytics, and GPT-Connected Prompt AI.

The Valla's Competitive Edge

The distinguishing feature of Valla Lab service is that it recommends makeup skills and cosmetics through beauty creators and utilizes AI in this process. Additionally, makeup artist matching, professional community, and AI personal color simulators are also unique aspects of Valla Lab.

The Valla has filed 12 patents related to video analysis AI technology and has completed the registration of one patent. Valla plans to further develop technologies such as facial matching AI based on video images, cosmetic compatibility recommendation AI, makeup simulators, and more AI technologies.
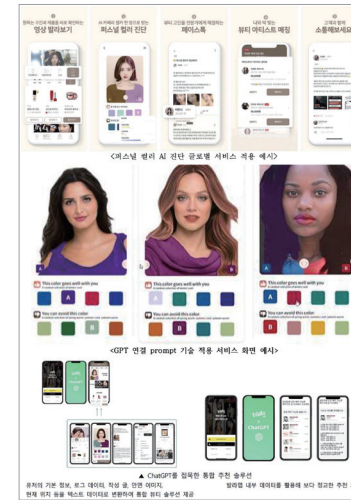
The Valla's Achievements and Future

The 'Face & Cloth Color Changer' technology within Valla Lab service is an AI-based feature that diagnoses personal colors online. This technology has received great response from users, recording the highest rank among beauty apps in both major app stores with a Monthly Active User (MAU) count of 110,000.

The Valla has recently developed GPT-Connected Prompt AI technology. The key is linking OpenAI technology with The Valla's recommendation AI. This technology can recommend beauty experts similar to the user and suggest other users' purchase records who resemble the user. Thus, it can recommend personalized beauty videos and cosmetics to users.

The Valla's current primary goal is to segment facial features using 200,000 celebrity facial images and convert Valla Lab user faces into text data suitable for GPT prompts.

TOONSQUARE

Company Toonsquare
CEO Lee Ho-young
Key Product/Service
Tooning Editor, Tooning Magic AI,
Tooning World
Business Area General AI
Website tooning.io

Toonsquare's Webtoon Production AI Solution 'Tooning'(Toonsquare)

Toonsquare Leads Innovation in Webtoon Production Using AI

Toonsquare is a startup that provides generative AI research and services. It was officially launched through Samsung Electronics' internal venture project 'C-Lab' in 2017 and spun off in 2019. The company currently releases and operates global Software as a Service (SaaS) products such as Tooning Editor, Tooning Magic AI, and Tooning World. It is growing at a rate of 500% annually and has received 4.3 billion won in investments to date.

Toonsquare's SaaS service, 'Tooning', is an AI solution for webtoon production, an interactive webtoon authoring tool that enables anyone to become a webtoon creator. Tooning aims to innovate as a 'UGC (User-Generated Content) Webtoon Platform based on authoring tools.'
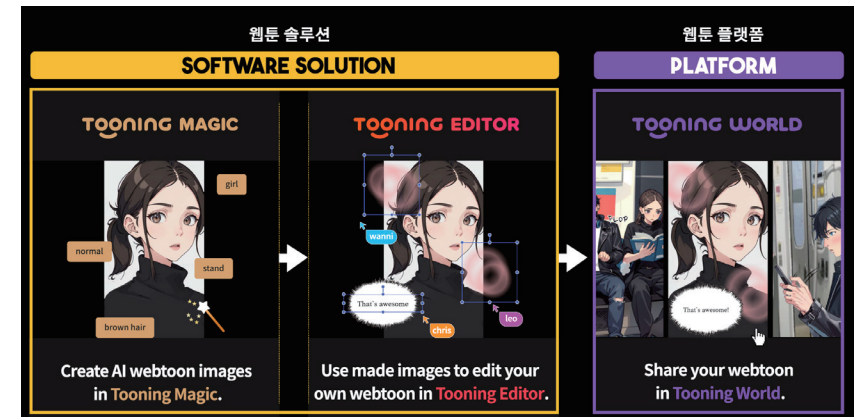
Toonsquare has integrated Stable diffusion and Chat GPT technologies with 'emotion analysis' and 'morpheme analysis'. This allows for significantly reduced work time in the production process of webtoons and other digital content, and it enhances the quality of digital content, contributing efficiency to the digital content creation pipeline.

Distinctive Features of Toonsquare's Webtoon Production AI Solution 'Tooning'

Tooning is a 'Full-stack platform' that can expand from a webtoon solution to a platform. Tooning Magic AI, Editor, and World can be used independently. However, when these three services are connected, they offer improved efficiency and time-saving benefits. This enhances the user experience and also allows operators to manage more efficiently.

ToonSquare has registered a patent for 'a method and server for creating smart modular characters with dynamic variability.' They have also filed for international patents, including 'an automatic cartoon image generation device and method based on input sentences', and have applied for design patents in 29 countries.

Toonsquare's Achievements and Future

Toonsquare has set a goal to enable webtoon artists to reduce production time by more than five times compared to the traditional methods, using AI technology and optimized systems.

Furthermore, by utilizing Tooning, Toonsquare aims to add efficiency to the digital content creation pipeline and expand as not only an interactive webtoon authoring tool but also as a 'UGC (User-Generated Content) Webtoon Platform based on authoring tools.'

In the future, Toonsquare plans to further develop and commercialize its 'Webtoon Production AI Solution', leading the innovation in webtoon production by shortening production periods and reducing costs.

Twowhy
We Design Innovation

Company Twowhy
CEO Yang Do-hyun
Key Product/Service Inbuzz
Business Area General AI
Website inbuzz.io

공간 분석　　요구 Spec　　현장 실측

도면 인식 기반 물량 산출 ＋ 필요 자재 자동 선정 ＋ 스마트폰 기반 AR 실측

실제 현장에 최적화된 인테리어 자재 물량 및 가격 산출

Twowhy's AI-Based interior service process(Twowhy)

Twowhy Provides Cost-Effective, High-Quality Interior Service with 'Inbuzz'

Founded in July 2021, Twowhy is an interior service company that provides optimal space solutions using AI. The company has received a cumulative investment of 730 million won and is attracting Series A investment (as of October 2023).

Twowhy's solution, 'Inbuzz', is the first service in South Korea to improve the unscientific material quantity calculation method and subcontract transaction structure in the interior materials and construction market. Twowhy introduced Inbuzz to improve the existing interior market's complex and opaque cost execution, which led to low customer satisfaction.
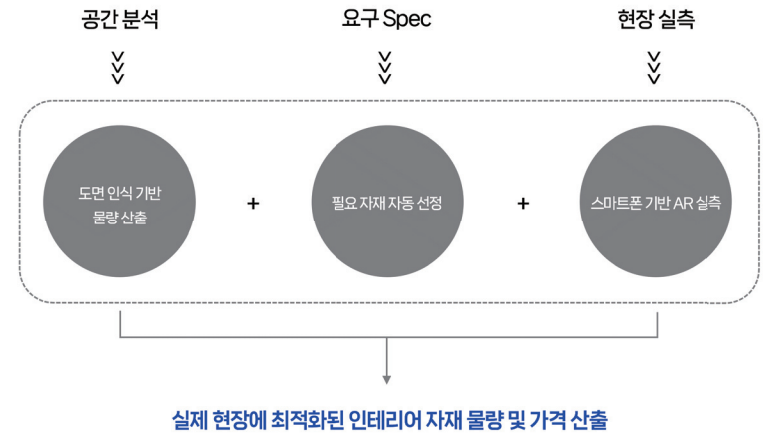
Inbuzz enables the calculation of optimized interior material quantities for sites through blueprint recognition technology. It also built a reverse auction system that can procure materials at the best price according to customer needs by constructing a diverse interior database (DB). Additionally, it applies AR measurement technology to on-site measurements, securing accurate site information required for interior construction quickly and precisely.

Twowhy's Competitive Edge
Twowhy's solution 'Inbuzz' has the special advantage of being able to eliminate price inflation caused by complex interior distribution structures through its AI technology, optimizing the quantity and supply price.

The key is not to reduce interior costs by lowering product grades or construction quality, but to significantly reduce costs while maintaining the same product grade and construction quality standards through tech technology.

Twowhy's Achievements and Future
Twowhy currently has clients such as F&B, clinics, academies, and sports centers, continuously operating spaces in various industries. These clients are saving an average of 15-30% or more on interior costs through the Inbuzz interior service.

Twowhy launched the Inbuzz interior service in January this year. From early 2024, it aims to grow into a company providing B2B specialized total space solutions by strengthening Cross-Selling that supplies all items such as furniture and furnishings used in commercial spaces. Additionally, in collaboration with domestic fintech companies, it plans to release new types of installment products for interiors to alleviate the payment burden of its client companies.

WorksBe.

Company WorksBe
CEO Kim Hyun-ho
Key Product/Service
'THE BULJA,' a job matching service using the OBC (Optimum Block Combination)
Business Area General AI
Website worksbe.com

WorksBe Enhances Job Seeker and Employer Satisfaction with O.B.C Engine for Job Matching

The OBC(Optimum Block Combination)-based job matching service 'THE BULJA'(WorksBe)

Founded in February 2019, WorksBe is a company that provides optimal short-term job matching services using the OBC (Optimum Block Combination). The company has received cumulative seed investments of 1.2 billion won and is currently preparing for a pre-A round.

WorksBe's core technology is the AI-based optimal combination matching engine, O.B.C. O.B.C combines all opportunities that can achieve the user's desired goals (quantity, amount, etc.), and provides the optimal matching result personalized according to each user's predicted preferences.

WorksBe is currently servicing its platform 'THE BULJA', which applies the O.B.C engine primarily to the short-term job matching market. This service provides individual members with the optimal path to achieve their desired income conditions. For businesses seeking to hire, it matches the best candidates within their desired conditions and target labor costs in a short time.
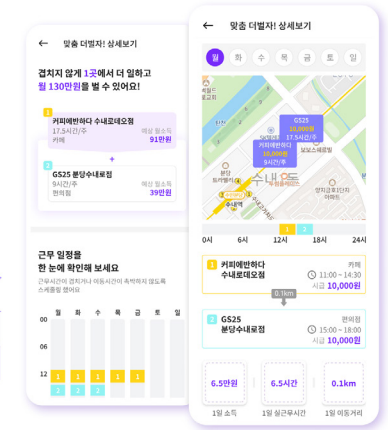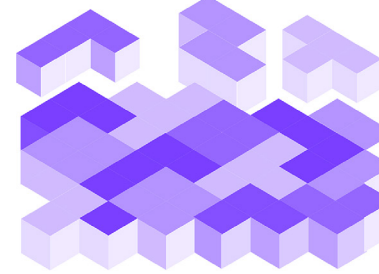
O.B.C collects all conditions and preference-related data that a real user would consider during matching, predicts user preferences, and maximizes the quality of the match.

WorksBe's Competitive Edge

WorksBe provides users with suitable matches quickly and at low cost. Its job matching service 'THE BULJA', using the O.B.C matching engine, demonstrates satisfactory matching technology for users. THE BULJA has already proven matching conversion rate more than five times higher than other platforms. It also reduces the time users spend searching for a job from tens of minutes to less than 3 seconds and delivers higher quality results.

THE BULJA confirms whether each job seeker and employer can achieve their targeted income (or labor costs) and other schedules and conditions from the matching stage. It has established itself as a platform that provides the best possible matches to achieve these target conditions.

WorksBe's Achievements and Future

WorksBe is currently offering THE BULJA in the Seoul area and has partnered with major financial companies in Korea. Its successful job placement rate is more than four times higher than that of major players in the market, and both individual and corporate member traffic and matching cases are growing rapidly.

WorksBe is preparing for the monetization of THE BULJA and the expansion of its service area. Through this, the company plans to enhance the speed and quality of collecting individual income path data through job matching.

In the future, WorksBe plans to expand the areas where O.B.C is applied beyond job matching to lifestyle matching and grow into a global personalized lifestyle matching company.

YESNOW

Company YesNow
CEO Hwang Ye-seul
Key Product/Service FitFinder
Business Area General AI
Website yesnowinc.io

카카오 알림톡 통해서만 구매 가능합니다 지금 미리, 핏파인더 친구 추가하고 알림 받으세요

KAKAO TALK

YesNow, AI-powered Sizing Recommendations and Inventory Reduction

YesNow's AI-based size recommendation service 'FitFinder'(YesNow)

YesNow is a company that provides the "FitFinder" service, which recommends the right size to consumers based on artificial intelligence (AI). The company was founded in May 2019 and received an initial investment of 100 million won.

YesNow's main services include: ▲FitFinder: A service that recommends the right size to consumers based on AI ▲FitDiscovery: A service that provides purchase data statistics to sellers ▲FitFinder Tagger: A service that extracts the product from a product image.

FitFinder recommends the right size based on AI, using images and various information provided by consumers (age, height, weight, body measurements, etc.). To secure detailed profiles of each individual consumer, FitFinder collected data

in a comprehensive manner when developing the AI engine, resulting in high accuracy in matching customer style and size.

The service was initially sold to casual clothing sellers, and later expanded its sales area to major fashion companies as the product was upgraded and service usage performance accumulated.

FitFinder Expands to Premium Brands

YesNow is currently developing an app that recommends and sells premium brand inventory to individuals at a discounted price. This app features the best premium products at a discounted price for consumers who cannot search through all the products, and the commercialization of overstock products from the seller's perspective.

In particular, each individual receives different product recommendations in this app. Therefore, from the corporate perspective, personalized promotions can be carried out without damaging the brand image. The premium brand recommendation app is currently operated through Kakao channels.

YesNow's Present and Future

YesNow is preparing to enter the premium fashion outlet market by expanding its AI-based personalized services. Through this, the company aims to bring the landfilled/incinerated malicious inventory to the outlet market and grow the fashion market. Currently, the sale of malicious inventory is in the PoC (proof of concept) stage with brands such as The Handsome and Black Yak.

The differentiating factor of

this service is that the demand for FitFinder and the source of malicious inventory are the same. This means that if you sell FitFinder to a fashion company, you can also procure malicious inventory from the same company.

Since its establishment, YesNow has consistently grown its sales and operating profits. In 2022, sales were about 200 million won, and it is expected to reach about 1 billion won in 2023. The company is currently collaborating with various fashion companies. It is also preparing to enter the Chinese market using WeChat and the Japanese market using LINE. The company also plans to secure customer behavior, product, and logistics prediction data by transforming sales distribution channels such as KakaoTalk, WeChat, and LINE into feed-based commerce.

3R INNOVATION

Company 3R Innovation
CEO Cho Kwang-soo
Key Product/Service
focuspang ai, Doctor Simon
Business Area General AI
Website focuspang.com, drsimon.ai

CORE TECHNOLOGY

Continuous Monitoring using Sensor Data

REALTIME TOUCH DATA | REALTIME KEYBOARD DATA | REALTIME EYE-TRACKING DATA

Data Analysis on Youth Mental Health and Learning Performance

Digital Phenotyping AI | Ruby-GPT

Insight Report & Modular Dashboard

'Doctor Simon' is an artificial intelligence technology that continuously monitors attention, learning, and mental health solely through digital log data and provides tailored care based on individual conditions(3R Innovation)

3R Innovation Uses AI Technology to Care for the 'Mental and Learning Health' of Teenagers
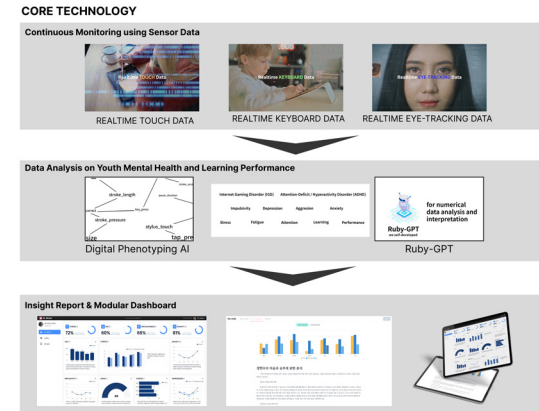
Established in September 2021, 3R Innovation provides specialized attention and mental health services for teenagers using digital phenotyping AI. The services include 'focuspang ai' and 'Doctor Simon'.

'Doctor Simon' is an AI technology that continuously monitors attention, learning, and mental health using only digital log data generated when teenagers use smart devices, providing personalizes care.

The core technologies are Digital-Phenotyping and Ruby-GPT. Digital Phenotyping is a digital phenotype or phenotyping AI that enables continuous monitoring in daily life. It is an AI technology that captures attention, learning, and mental health expressed in device usage behaviors such as touching, keyboarding, stylus writing, and eye movements of teens when using smart devices.

Ruby-GPT is a proprietary technology developed to overcome numerical analysis and interpretation issues of ChatGPT, used to feedback digital phenotyping data analysis results and predict mental health risk states.

The analysis results from Digital Phenotyping and Ruby-GPT are visualized in a dashboard format to help children and teenagers understand their mental health status and self-regulate. It also provides parents, teachers, counselors, and psychiatrists with customized suggestions to improve children and teenagers' concentration, learning, and well-being based on insights from data analysis.

### 3R Innovation's Competitive Edge

Doctor Simon is the world's first digital phenotyping AI-based commercial mental health service specialized for children and teenagers. It naturally monitors and predicts outcomes without disrupting teenagers' daily activities, using smart device sensor data. This differentiates it from invasive methods like questionnaire responses and one-on-one interview services, overcoming limitations of traditional mental health care services offered in psychiatry and child and adolescent mental health clinics. Additionally, it provides quality analysis services with objective assessments based on sensor data, unlike questionnaire methods which can include the service provider's subjective views.

3R Innovation's Achievements and Future

Focuspang ai is currently used by about 80,000 students in 259 schools in Seoul. Focuspang ai is used in the classroom to share screens between teachers and students with a screen sharing service, and Quizpang is used in the classroom to create quiz battles to improve students' understanding and interest in learning.

3R Innovation is developing the inclusion of Doctor Simon service within the focuspang ai service, allowing schools to use focuspang ai for mental health care as well.

Intelligent
Agents
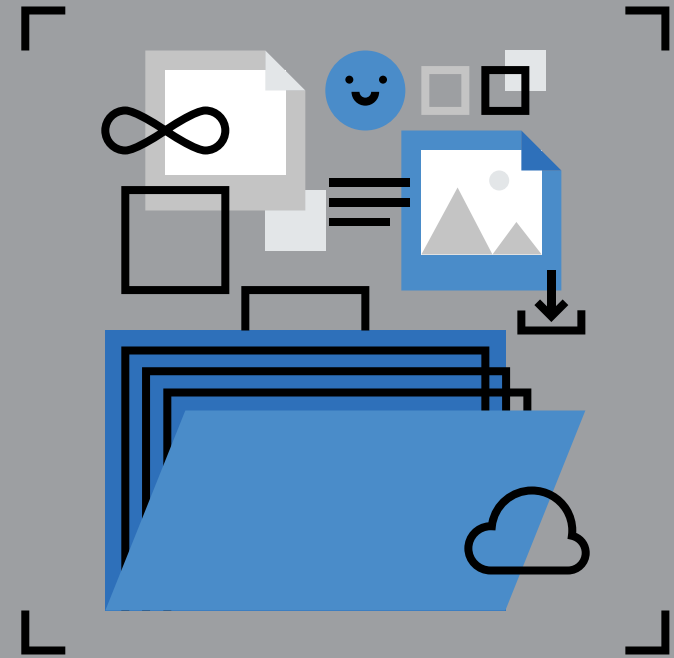
Impactive AI

DeepFlow's execution screen(Impactive AI)

Impactive AI Maximizes Corporate Revenue with AI Enterprise Solutions for Businesses

Established in July 2021, Impactive AI is a company that helps maximize revenue for businesses by providing them with new product performance prediction and product demand prediction solutions based on AI predictive technology. The company completed a pre-Series A funding round in 2023 and has attracted a total investment of 2.1 billion won.

Impactive AI develops AI enterprise solutions for businesses. Its proprietary AI prediction model is applied across the entire lifecycle of a client company's products, from launch to discontinuation, providing a customized decision-support system for each client.
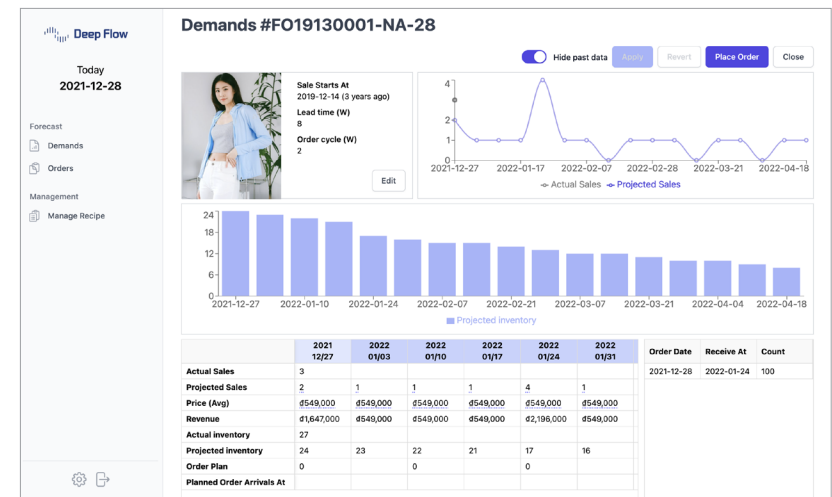
ImpactiveAI supports a system that maximizes profitability by predicting future sales volumes based on machine learning models. Specifically, it offers ▲New product performance prediction to forecast the success of products before launch ▲Optimization of inventory management through prediction of future orders ▲Pre-determination of product portfolio by predicting total sales over the product's lifespan and life cycle. These AI features are offered in the form of Software as a Service (SaaS) for easy access in cloud environments.

Impactive AI's Competitive Edge

Impactive AI possesses a unique solution that applies predictive models to the entire product management cycle, enhancing profitability. Its Predictive New Product Development (NPD) and Portfolio Management (PTF) are unique in the industry.

Additionally, Impactive AI has developed 100 AI prediction models, boasting top-tier global prediction technology. In terms of model performance (accuracy), its models are more accurate than typical machine learning predictive models and are competitive with global companies.

Impactive AI's system uses ERP and environmental data to predict demand, presenting results in numbers and graphs. This aids in more effectively deciding on product order volumes and production plans, contributing significantly to reducing excess inventory and stock shortages.

Impactive AI's Achievements and Future

Impactive AI is currently developing advanced machine learning prediction models. It plans to further sophisticate its current prediction models by utilizing machine learning and deep learning technologies. The advanced models are expected to enable more accurate predictions and meet user needs more precisely.

The automation of the data pipeline, including data collection, preprocessing, model training, and deployment, is expected to improve work efficiency and data processing speed, supporting faster decision making.

Meanwhile, the company plans to expand its solution supply references, build reliable reference cases, and contribute to forming trust with new clients. There is also a plan to strengthen sales of the system and collaboration with client companies.

smoretalk

Smoretalk's AI-first image assistant 'Flamel'(Smoretalk)

Smoretalk Utilizes Generative AI to Accurately Create Visual Content with 'Flamel' Based on User Intent

Founded in April 2023, Smoretalk operates 'Flamel', a service for creating visual content using AI. The company has attracted seed investments from two institutions.

Smoretalk's 'Flamel' is an AI-first image assistant. It helps users quickly obtain the visual assets they need in the desired form.

Flamel has three core technologies. Firstly, it features 'Optimal Prompting' technology. This LLM agent automatically converts text input by users into prompts, which are most recognisable by AI and align with the user's intentions.
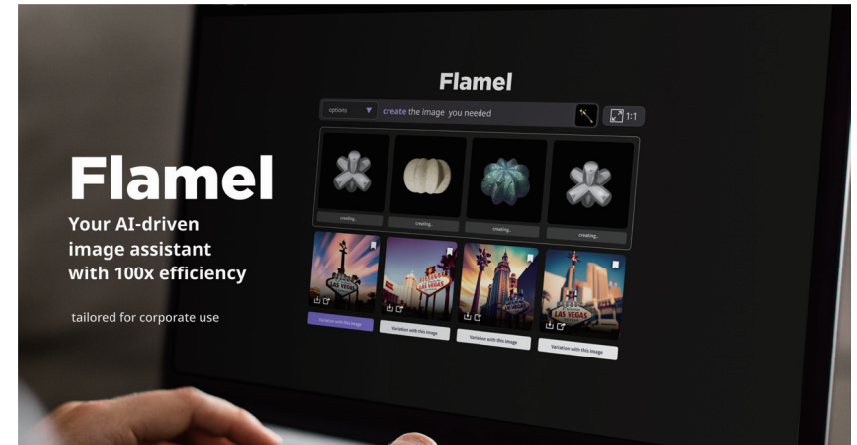
The 'Automatic Labeling' technology allows effective learning of the user's image assets by the model by automatically executing suitable labeling for image training. Additionally, the 'Dynamic API' technology rapidly implements various image creation and editing related open source models and user specific models in API form.

Smoretalk's Competitive Edge

In the vision field, open source models are rapidly expanding, offering the best performance and unique functions in creation and editing processes. However, users face inconvenience due to the lack of Graphic Processing Unit (GPU) or web-based tool.

To solve this problem, Smoretalk has based Flamel on LLM agents, ensuring the most accurate reflection of user intent. Moreover, the company is optimizing and introducing open-source image AI that is rapidly deployed. This approach allows providing users seeking commercial images with utmost convenience and new experiences.

Smoretalk's Achievements and Future

As of October 2023, Smoretalk has three customers and more than 15 proposed adoptions. In addition, two rounds of closed beta testing attracted more than 300 participants to validate the market's response.

Following the beta tests, Smoretalk is focusing on launching Flamel into the market, solidifying its branding as a highly usable image tool. Based on market feedback, the company plans to meet the needs of various client companies by individually applying image creation models or the necessary large language models for their use.

SWEVENZ

Swevenz's real-time bidding advertising platform 'DEX DSP'(Swevenz)

Swevenz, Offers Optimal Advertising Bids Based on AI

Founded in August 2022, Swevenz operates a real-time bidding advertising platform called 'DEX DSP', which is based on AI to strategize optimal budget bidding. DEX DSP allows real-time monitoring of AI-based optimal budget bidding strategies.

A DSP (Demand-Side Platform) is a programmatic advertising platform that enables advertisers or ad agencies to buy high-efficiency ad inventory from various advertising supply platforms. It features a dashboard where one can set campaign details (duration, budget, target, etc.) and monitor results in real time, while AI optimizes ad efficiency.
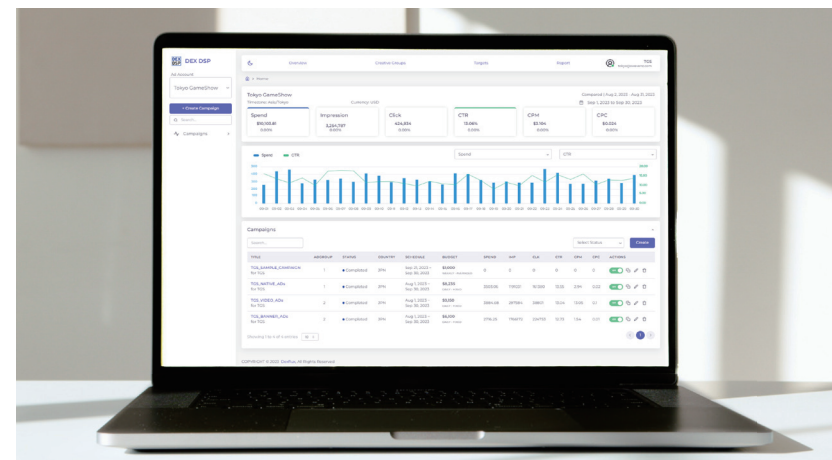
By analyzing the characteristics of ad inventory and the distribution of bid requests, it allocates an optimized budget. Using both user targeting and inventory targeting, it analyses the efficiency of campaigns, determining the most effective times and places for ad exposure, thereby optimizing budget allocation.

Swevenz's Competitive Edge

Due to big tech companies strengthening privacy policies, users can now set preferences for personalized advertising. This has made user-targeted digital advertising less efficient than expected.

Swevenz compensates for this with inventory targeting, optimizing campaigns. Inventory targeting helps run efficient campaigns by analyzing the characteristics of the inventory and the traits of its visitors. Swevenz's real-time bidding ad buying platform, DEX DSP, comes with a dashboard where users can set the details of their solution campaign (duration, budget, targets, etc.) and see the results in real-time.

Swevenz's Achievements and Future

Swevenz conducts real ad campaigns through partnerships with domestic and international supply platforms. It has conducted campaigns like domestic mobile game advertising and branding and game advertising targeted at specific foreign countries, thus verifying budget distribution strategies using mathematical models. The collected bid request data will be used for reinforcement learning.

In terms of service, a self-serve feature will be added to enhance the usability of DEX DSP. This feature will allow even small advertisers to set up campaigns and modify targets and content based on real-time performance data. Furthermore, the platform plans to expand by further developing AI technologies commonly used in marketing.

From a market perspective, Swevenz is planning to enter the Connected TV (CTV) market, which is transitioning to digital advertising. With the increasing distribution of smart TV and expansion of the OTT market, the CTV advertising market is growing by more than 20% annually.

Tryfifty

Company Tryfifty
CEO   Lee Hyun-woo
Key Product/Service
Launch Bound
Business Area Intelligent Agents
Website   tryfifty.com

Tryfifty, a GPT-based 'Launch Bound' for No SW Design Experience Needed
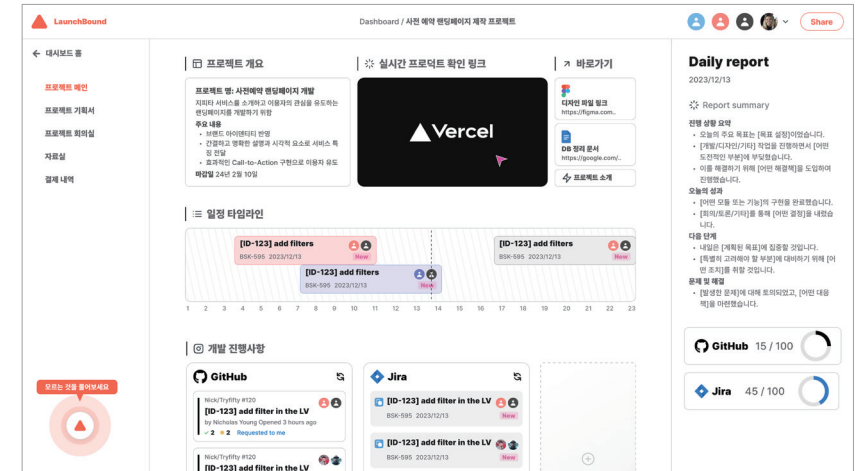

Launch Bound's dashboard(Tryfifty)

Founded in October 2022, Tryfifty is a company that develops SaaS services for software service planning based on GPT. TryFifty provides language understanding chatbot, virtual assistants for software planning areas, software planning and content creation for design.

SaaS operated by Tryfifty is different from existing services that create wireframes based on text input. It helps to recommend, organize, and supplement the user's ideas and provides a full architectural software plan for development or design.

Tryfifty's Competitive Edge

Tryfifty primarily targets start-up teams with little experience in software design. It helps them to design products based on their ideas and create documents at a level understandable by actual designers or developers.

For example, the hardware start-up team GoTeath faced difficulties in planning and designing software apps to be integrated with their hardware, but by working with TriFifty, they were able to successfully prototype through an outsourced vendor.

Tryfifty's Achievements and Future

With the advancement of LLM (Large Language Models), tools for text-to-code and text-to-UI design conversion are emerging in the global market. This trend is expected to develop further. Eventually, to achieve the desired results, the text must be able to clearly express one's thoughts.

Launch Bound plans to enhance the process of converting ideas into text and expand its service to ultimately produce products from customers' ideas by integrating with related services through partnerships and API.

Robotics

LUNALabs

LUNALabs Operates 'Botty,' a Robot that Cooks Various Recipes

LUNALabs' cooking robot 'Botty'(LUNALabs)

Founded in October 2018, LUNALabs develops and supplies Botty, a cooking robot that utilizes technologies such as AI, digital twins, blockcoding, and 3D cameras.

LUNALabs' Botty is a cooking robot that can cook a variety of recipes and can be easily operated by anyone. It offers a solution that enables the operation of a one-person robot franchise. Its core technologies include digital twins, block coding, 3D cameras, and AI.

A digital twin is a technology that synchronizes the real world with the digital. Users can receive the movement of the actual robot on a digital screen and control the robot easily through the screen, like playing a game. This allows for checking efficiency and safety without having to install and activate the robot.

Furthermore, Botty users can easily change recipes through block coding. Various operations such as the order of cooking, the amount of ingredients, and change ingredients are possible. Originally, only specialized engineers could operate the robot, but it has been made easy for general users as well.

The 3D camera helps the robot perform precise cooking tasks. Previously, only repeated movements at specified coordinates were possible, but Botty can recognize objects directly with the camera and use AI to make interactive movements, just like a human.

LUNALabs Botty's Competitive Edge

The advantage of LUNALabs' Botty is its high accessibility. While other robots require professional robot engineers for operation, Botty can be operated directly by the user. It also offers efficiency in operating the robot in a digital twin environment.

Botty can cook multiple menu items with one robot and has the flexibility to create customized recipes. Unlike other robots that only move to designated positions, Botty can perform interactive movements as the 3D camera acts as the robot's eyes.

LUNALabs Botty's Achievements and Future

In 2023, Botty participated in several exhibitions, including the World IT Show and AFRO Expo, and cooked ramen. It can cook a variety of foods, including chicken and yogurt, and has adjustable options.

LUNALabs is currently pursuing both technological development and commercialization. Next year, they plan to open a 24-hour delivery restaurant with special meal kits that Botty can cook. Based on this reference, LUNALabs plans to receive investments and make Botty as a one-person robot franchise. They also aim to enter the meal kit market by acquiring a patent for 'robot meal kits' to increase market entry barriers.

Macroact Leads Improvement of Robot Tech with Reinforcement Learning-based Solutions

Maidynamics-based Home Robot "Maicat"(Macroact)

Macroact is an AI and robotics startup founded in May 2019 that develops robot autonomy solutions. The company has developed an integrated solution for robot simulators, "Maidynamics", and a home robot that verifies it, "Maicat".

The robotics industry is rapidly developing, but software is not keeping up with the pace. In particular, robot simulators are time-consuming and expensive, and they have difficulty with compatibility(compatibility with other models of robots).

Macroact has developed an integrated solution "Maidynamics" that can be used throughout the entire robot development process, while solving these problems. This solution introduces reinforcement learning to robot simulators to find the optimal motion control required

for various task execution in a virtual environment. This provides training that adapts to the variable real environment.

Maidynamics and Maicat

Maidynamics has reduced the previously infinite repetitive process of finding errors and correcting them in six steps to three steps: "Define", "Learn", and "Deploy", which improves usability and economic efficiency. It can also be compatible with new types of robots.

In the case of a walking robot, which has a large number of joints and requires interaction between joints that are not directly connected, the learning time increases exponentially. To solve this, Macroact developed a technology to extract dynamics data from animal behavior, and the joint inference neural network

used in this has reached an accuracy of over 99%. These technologies have all been patented.

Macroact developed a home robot "Maicat" that can verify and promote the Maidynamics solution. Maicat is a robot that combines the intelligence of AI with the characteristics of a pet. Maicat recognizes faces and perceives moods and behaviors through a camera and microphone.

Macroact's Achievements and Future

Macroact won the Smart Home category Innovation Award at CES 2022. It was also selected for TIPS (Tech Incubator Program for startup Korea) by the government. Macroact is currently enhancing its solutions to provide metafactories that combine robot autonomy technology and dynamic digital twins to the

manufacturing industry in general where robots are active.

Macroact also plans to develop Maicat into a robot that becomes the center of the smart home era by implementing a SDK and store that can incorporate and sell IoT(Internet of Things) services from other companies and applying the Matter standard.

OnITKOREA
온잇코리아

Custom route optimization and dispatch recommendation service 'ZimlalaBIZ'(ONITKOREA)

ONITKOREA Operates Optimized Dispatch Recommendation Service Using Big Data

Established in May 2020, ONITKOREA operates a B2B2C freight transportation big data-based driver and customer tailored route optimization and dispatch recommendation service. The company has received an investment of 500 million won to date.

ONITKOREA's 'ZimlalaBIZ' is a custom route optimization and dispatch recommendation service that uses AI to utilize B2B2C freight transportation big data, from route design to analysis and optimized driver matching.
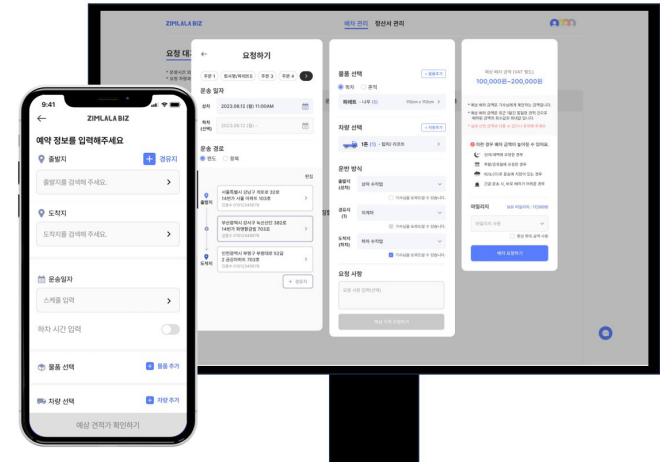
It designs optimized routes considering the cargo and vehicle load rate, empty vehicle transportation distance rate, and arrival schedules to reduce transportation costs and shorten work hours. Also, by analyzing and systematizing cargo requests, driver,

and dispatch data, it recommends high-quality drivers customized for clients, enhancing service satisfaction and increasing the probability of successful matches.

Specifically, it designs and analyzes knowledge graphs based on the correlation between request information and dispatch information (driver expertise, reviews and ratings, match status and time taken, etc.) to recommend the best dispatches matching cargo requests and route criteria.

ONITKOREA's Competitive Edge

ONITKOREA's service has the strength of reducing logistics costs. Traditional dispatch services, which assign drivers based on first-come-first-serve orders from customers, make it difficult to achieve efficient dispatch considering

vehicle load and empty distance rates, leading to increased logistics costs for shippers.

In contrast, ZimlalaBIZ applies AI-based load rate calculation, vehicle recommendation algorithms, and technology to design routes that minimize the empty vehicle transportation distance rate, enabling logistics cost reduction.

Additionally, it has the advantage of increasing service satisfaction with customized driver recommendations. It is possible to recommend drivers matching various conditions required by customers (kindness, cleanliness, transportation and arrangement skills, etc.), enhancing service satisfaction.

ONITKOREA's Achievements and Future

In May 2023, ONITKOREA was selected as an untact innovative logistics

company. It was selected for the TIPS R&D project for its 'B2B2C Freight Transportation Big Data-Based Driver-Customer Tailored Route Optimization and Dispatch Recommendation System' and is currently implementing it.

ONITKOREA officially launched 'ZimlalaBIZ' in June 2023, and is recruiting clients to validate the usability of the actual service and continuously improving its features. Through these improvements, it plans to enhance service satisfaction and expand the scale of the B2B2C freight transportation market in the future.

Medical Artificial Intelligence

actibrain

Activbrain's Active Brain Scanning: MRI in Everyday Life

A depiction of someone using Activbrain's 'BrainCare'(Activbrain)

Founded in January 2019, Activbrain is a digital therapeutics development startup that provides customized solutions for early detection and management of brain diseases using artificial intelligence (AI) and extended reality (XR).

Activbrain is breaking new ground in the field of brain medicine by applying AI and XR to the early diagnosis and treatment of neurological brain diseases, which is one of the most urgent tasks in the field of brain medicine. In particular, the "Active Brain Scanning" technology, unlike MRI, which takes a brain scan without moving, monitors brain activity in real time and provides functional brain data to medical professionals by analyzing it with AI technology.

This technology can capture brain activity even while the patient is living their daily life. From the perspective of medical professionals, they can continuously monitor the condition of patients, so they have more opportunities for early diagnosis and prompt treatment.

AI and XR-based Personalized Healthcare

Activbrain's innovation does not stop at diagnosis. The combination of AI and XR provides a personalized brain health care experience for each individual patient. It provides comprehensive solutions from early detection of diseases to treatment and management in a mixed environment of virtual and reality, thereby innovatively improving the quality of life of patients.

Activbrain's Achievements and Future

Activbrain is attempting to early detect neurological brain diseases that have a symptom-free period of 15 to 20 years through digital biomarkers and AI algorithms. By collecting brain health data and analyzing it through AI, Activbrain sets a new standard for the prevention and management of brain diseases.

In early 2023, Activbrain signed a memorandum of understanding with the research team at Johns Hopkins University in the United States to develop dementia prevention and treatment drugs. In addition, the company has been developing a user-friendly AI system for cognitive function measurement based on extended reality (XR) and digital therapeutics.

Activbrain was selected as a resident company at the "Seoul AI Hub." Activbrain expects to create synergies by utilizing the various programs and networks provided at the Seoul AI Hub to promote corporate growth and strengthen R&D capabilities.

Activbrain's continuous research and development and innovative AI technology are opening a new chapter in brain medicine and healthcare. The company is working on new initiatives with the "Intermedia Lab" led by Professor Yoon Joo hyun of Seoul National University.

ACOME
에이아이다이콤 (주)

AIDICOME Utilizing AI Algorithm for Bone Density Diagnosis and Management

The X-ray bone density measurement solution 'BMD-X' utilizing AIDICOME's AI algorithm(AIDICOME)

Founded in July 2021, AIDICOME is a company that develops solutions using AI algorithms for bone density diagnosis and management utilizing X-ray. Existing methods of bone density measurement compare images of bone and soft tissue obtained by irradiation with both high-level and low-level radiation.

AIDICOME's 'BMD-X' technology applies an autoencoder algorithm to bone density measurement. This technique extracts soft tissue solely from bone tissue images obtained from X-rays. This allows the creation of virtual analyzed image data that synthesizes bone tissue and any soft tissue to predict bone density from X-ray images alone.

AIDICOME's Competitive Edge

AIDICOME's 'BMD-X' differs from traditional methods that use expensive equipment to expose the area to two types of radiation. It allows for analysis using only X-ray images and machine learning.

Particularly, the program is available in the form of an application, enabling users to execute, diagnose, and manage through smart devices from anywhere. It provides highly accurate prediction results without the need for expensive equipment like DXA used traditionally for measuring bone density, making it cost-effective.

AIDICOME's Achievements and Future

AIDICOME is currently working to make bone density diagnostic services available in veterinary clinics without the need for specialized measuring equipment. In collaboration with Branvine, a manufacturer of pet supplements, they have completed an agreement on the subscription fee for the program. They have also secured a letter of intent for an investment of 300,000 dollars (400 million) planned by the end of 2023.

DiaVision

Company DiaVision
CEO Lee Seok-yong
Key Product/Service
Smart Vision, Digital Vaccine
Business Area
Medical Artificial Intelligence
Website diavision.co.kr

언제 어디서나 쉽고 빠르게
질병을 검사, 진단, 예방하는
디지털 백신
DiaVision
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DiaVision's Digital Vaccine(DiaVision)

DiaVision Develops Analysis and Disease Risk Management Solutions for Diagnostic Kit Results Using Smartphones

DiaVision is a digital healthcare company created by Samsung Electronics' innovative biotechnology and software (SW) technology experts and spun off from Samsung Electronics' internal venture program C-Lab. The company was established in October 2021 and has received 700 million won in seed investment and is currently undergoing pre-A investment.

DiaVision is developing 'Smart Vision', which analyzes rapid diagnostic kit results using smartphones, and 'Digital Vaccine' to help manage disease risk.

Smart Vision uses AI that recognizes and quantitatively analyzes various rapid diagnostic kit images, high-performance digital image processing technology, and data augmentation techniques that can simulate various inspection environments.

Digital Vaccine uses a composite analysis of biomarker data, personal health records (PHR), and life logging data to help manage disease risk.

DiaVision's Competitive Edge

DiaVision's solution has realized quantitative analysis, which previously required small testing equipment, through mobile devices. It can completely replace professional testing equipment and makes home testing widespread.

Unlike other mobile solutions that required additional accessories, DiaVision's solution allows measurement and analysis with just the smartphone itself. Furthermore, it can be used in most general environments, unlike other mobile solutions that require limited testing environments, thanks to various deviation correction technologies.

DiaVision's Achievements and Future

DiaVision has successfully commercialized the Smart Vision segment, preparing after signing a supply contract with a multinational company in the US. It has also signed a three-year long-term supply contract with a domestic conglomerate and is aiming for a launch in April 2024. Additionally, various healthcare companies and diagnostic kit manufacturers are interested in adopting the Smart Vision solution.

DiaVision plans to further develop the Smart Vision technology and build a data platform, evolving into a Digital Vaccine that provides solutions for managing disease risk through complex data analysis.

As the nature of the digital healthcare platform requires a long time to complete, the company will continue to conduct partial commercialization to secure revenue and advance technology.

MONIT

Digital Health Care

Adult diaper care system 'MECS' & alarm lamp, sensor strap(MONIT)

MONIT's Smart Diapers Use AI to Improve the Lives of Elderly

MONIT is a digital healthcare company that has developed its own diaper detection technology. It was founded in April 2017 and has raised 4 billion won in Series A investment to date.

MONIT's 'MECS' is an adult diaper care system consisting of a wearable sensor attached to the outside of the diaper, a communication hub, and a mobile app. MECS is a service that can monitor the contamination of the elderly's diapers in real time and accurately determine the time to change the diaper for the elderly over 10 million in Korea, using pattern learning algorithms and multi-sensors that apply AI sensing technology.

MECS is equipped with three high-precision sensors: temperature sensor, humidity sensor, and capacitance sensor. These sensors notify you of the time to change and automatically save the replacement record. It also detects movement and notifies it via mobile, so caregivers can respond immediately.

Uniqueness and Major Achievements of MECS

MECS can effectively prevent urinary tract infections and bed sores, which are the most vulnerable to the elderly, and reduce the workload of caregivers with smart care technology. This is a clear difference from the existing commercialized products, which have low accuracy and provide only toilet events.

MECS is selected as an innovative welfare medical device by the National Health Insurance Service(NIHS), and you can purchase it with 70% of the cost supported by the government. In addition, it is preparing for a full-scale entry into Japan, such as establishing a continuous cooperative relationship with Kao Group, a leading Japanese healthcare company.

In the general home care market, it is being introduced rapidly centered on nursing homes and nursing hospitals. Currently, it is conducting a pilot project in cooperation with Yangpyeong Nursing Home, in addition to signing a business agreement with Catholic University St. Vincent's Hospital. It is also rapidly expanding its base by providing services to Onnuri Nursing Home in a subscription format.

MONIT's Future

MONIT is developing a non-face-to-face patient pre-examination system that incorporates AI technology. This system allows patients to explain their current disease status to medical professionals in enough time, and guardians can also participate in the remote consultation. Medical professionals can conveniently conduct remote treatment for patients who need isolation, and most importantly, they can review the patient's prognosis in a summarized form after converting it into text before the consultation.

MONIT is also pursuing overseas business. It currently supplies products to Kao Group in Japan, and is in talks to supply a dedicated diaper sensing system to Hartmann, a German adult diaper manufacturer. MONIT is trying to expand its business area to all of Europe with Germany as a base.

PREVENOTICS
AI. PREVENTION. DIAGNOSTICS

Company Prevenotics
CEO Jang Su-yeon
Key Product/Service
AI-based Cancer Prevention
Diagnostic Assistance Software
Business Area
Medical Artificial Intelligence
Website prevenotics.co.kr

Prevenotics, Assisting in Cancer Prevention and Diagnosis with AI

Prevenotics's AI-based Cancer Prevention Diagnostic Assistance Software(Prevenotics)

Founded in July 2021, Prevenotics develops software that assists in cancer prevention and diagnosis based on AI. The company has attracted more than 1 billion won in seed investment (selected for TIPS).

Prevenotics is developing solutions that utilize AI to assist in the prevention and diagnosis of cancer. The company is focusing on AI-assisted diagnosis and support for targeted diseases in high-risk populations for gastric cancer, where the accuracy of endoscopic visual diagnosis is relatively low.

Preventotics are aimed at the early diagnosis of gastric cancer itself and the prevention and management of pre-cancerous conditions. AI-based real-time diagnosis of endoscopic abnormalities is the main technology. This real-time AI technology aids in the convenience and accuracy

of doctors' diagnoses and assists in personalized gastric cancer prevention for high-risk patients.

Biopsies to confirm gastric cancer are partially based on endoscopic visual findings alone. This leads to lower diagnostic accuracy and increases the risk of developing high-risk diseases like gastric cancer. Prevenotics' AI diagnostic assistance and prevention management system aim to prevent the progression to gastric cancer under medical supervision.

Prevenotics's Competitive Edge

Prevenotics' point of difference is cancer prevention. Typically, patents of companies related to gastric cancer diagnosis and disease discovery focus more on diagnosis and disease discovery than

prevention. Prevenotics' solution is the only technology in Korea that targets diagnosing high-risk pre-cancerous diseases and actively aims for cancer prevention. Based on such diagnoses, it can assist and manage cancer prevention through patient-customized healthcare reports and systems.

Prevenotics's Achievements and Future

Prevenotics has started POC (Proof of Concept) and licensing in the form of a prototype of its own solution (as of October 2023). After testing, they plan to proceed with feedback and refinement, aiming for product launch after 2024.

In the short term, Prevenotics aims to commercialize its artificial intelligence solution for gastric cancer prevention in Asian countries. In the

medium to long term, they plan to establish an ecosystem that can assist in diagnosing and managing the precursors of cancers such as colon cancer and liver cancer, which are diagnosed through endoscopy or ultrasound, not just gastric cancer.

Company VIRTRIS

CEO Hong Youn-seok

Key Product/Service

Pan-Omics Analysis Service

Business Area

Medical Artificial Intelligence

Website virtris.com

Pan-Omics is a platform that analyzes various Omics such as genome, metabolome, transcriptome, and proteome(VIRTRIS)

VIRTRIS, With Data Analysis 'Pan-Omics', Aids Pharma In Customized Drug Development

Founded in 2021, VIRTRIS provides customized drug development services to pharmaceutical clients through its data analysis platform, 'Pan-Omics'. Pan-Omics is a platform that analyzes various Omics such as genome, metabolome, transcriptome, and proteome.
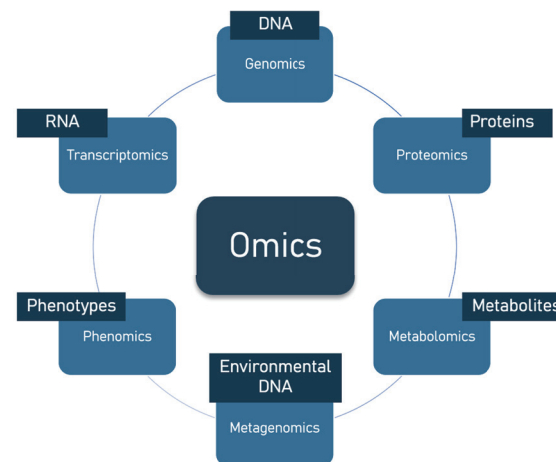
By acquiring omics data, including genomics, transcriptomics, and proteomics, VIRTRIS is able to optimize patient selection criteria through the discovery of novel and companion diagnostic biomarkers for current target drugs.

VIRTRIS also provides services to expand new disease indications for targeted drugs and identify new therapeutic targets for targeted diseases.

VIRTRIS' Competitive Edge

Single-Omics analysis technologies, which only show data at the level of one molecule like DNA, offer very limited information. In contrast, Pan-Omics analysis integrates multiple omics data to provide more refined and diverse information.

Pan-Omics analysis more clearly demonstrates biological mechanisms. This type of analysis can provide crucial information for researching diseases with complex causes, like cancer. Also, using omics-based data in the early stages of drug development can help identify marketable specific indications to target for the selection of new compounds.

VIRTRIS' Achievements and Future

In the first half of 2023, VIRTRIS signed a contract with GI Innovation to analyze Pan-Omics data for an immunotherapy drug currently in development. This will optimize patient selection based on genomic modeling, expand new disease indications, and provide scientific evidence for existing target diseases. They also offer services to explore changes in key genes and signaling pathways after drug treatment in cell and animal models, helping to elucidate mechanisms of drug resistance.

In the second half of 2023, VIRTRIS signed a new contract with Cellabmed for future development of targeted anticancer agents in their pipeline.

VIRTRIS plans to use its platform to discover new targets and expand indications for various pharmaceutical companies. VIRTRIS also intend to pursue joint compound development based on IP sharing with pharmaceutical companies.

W.AI

Company W.AI
CEO Kim Jae-hong
Key Product/Service W Expert
Business Area
Medical Artificial Intelligence
Website w-ai.ai

'W Expert' web page(W.AI)

W.AI, a Specialized Diagnostic Service for Plastic Surgery

Founded in February 2023, W.AI is developing various AI-based diagnostic services related to breast augmentation and reconstruction surgery. The company has attracted 500 million won in private investment from InventionLab.

W.AI's 'W Expert' is a medical ultrasound image-based AI program providing information related to various breast implants, particularly useful for revision surgeries. It uses AI to analyze artificial breast implants used in breast augmentation or reconstruction, diagnose side effects, and determine whether the implants are associated with lymphoma. This AI program, utilizing ultrasound images rather than standard X-rays, is considerably more complex and sophisticated than other image-based AI programs.

The CEO, Jae Hong Kim, is a breast surgeon with 20 years of experience. He has disseminated knowledge and experience related to breast implants through domestic and international academic activities and is known to have been directly involved in the development of the company's services.

W.AI's Competitive Edge
Unlike most medical AI services, which focus on diseases like cancer or chronic conditions, W Expert is a Software as a Service (SaaS) solution introduced in the field of plastic surgery.

Previously, ultrasound or MRI was used to diagnose complications from breast implants. MRIs, however, are expensive and limited in identifying various implant details. In contrast, ultrasound is a more affordable and safe diagnostic tool with no radiation exposure, capable of providing extensive information.

W Expert is based on ultrasound technology. A medical team with expertise in breast implant examination has developed this AI program using a collected and pre-processed dataset, notable for its high accuracy.

W.AI's Achievements and Future
W.AI is preparing for clinical trials (as of October 2023). After these trials, the company plans to use the new medical technology evaluation exemption to ensure that patients who use implants for breast reconstruction are covered by health insurance. The company plans to distribute the program to screening centers and breast surgeons for cosmetic patients. W.AI is also preparing for U.S. FDA and European CE certification based on its technological capabilities.

In 2022, the company received venture certification and plans to develop AI for rhinoplasty diagnosis and breast nodule diagnosis using ultrasound images. Since moving into the Seoul AI Hub in February 2023, W.AI has been focusing on accelerating corporate growth, training professionals, and strengthening R&D capabilities by utilizing various programs and networks provided at the hub.

SEOUL AI STARTUP 100