

# Al can Make The World a Better Place

Konan Technology will take a step forward



#### Video Al

Konan Vision AI - Indoor SAR (1/2)

Konan Vision AI enables real-time person detection and recognition at the edge.



**Poor Lighting** 

**Motion Blurring** 

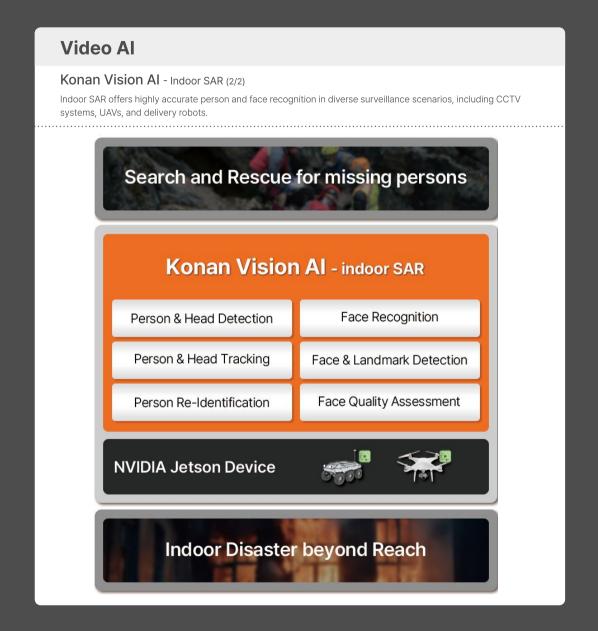






**Pose Variation** 

- · Supports multi-vision tasks simultaneously in real time on the Jetson series.
- · This cutting-edge technology provides highly accurate person and face recognition in various surveillance scenarios such as CCTV systems, UAVs and delivery robots.
- · Our technologies can help to quickly identify victims and survivors of indoor disasters and terrorist attacks.



#### Video Al

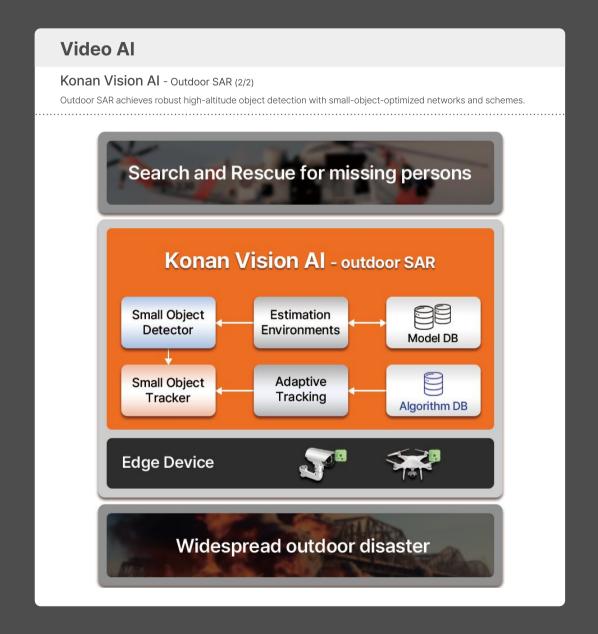
Konan Vision AI - Outdoor SAR (1/2)

Konan Vision Al enables real-time person detection and recognition at the edge.



**Person Detection Under Challenging Conditions** 

- · With small-object-optimized networks and schemes, our system achieves robust high-altitude object detection.
- · Under challenging conditions, including inclement weather, our video object identification technology ensures stable and reliable performance.
- · Adaptive Object Data Association effectively extracts object features in camera blur situations, thus reducing ID missing.
- The enlarged Adaptive Object Data Association algorithm maintains stable object tracking performance even when frame drops occur.



#### **Digital Twin**

#### Data-Centric Al Maintenance, Konan PHM (1/2)

Konan PHM is a digital twin-based AI predictive maintenance solution. It enhances the accuracy of fault diagnosis and remaining life prediction for components/equipment in the aerospace, defense, and manufacturing industries, supporting optimal decision-making.

#### **Overcoming Data Limitations**

ield issue

Lack of failure data and labeling data.



The innovative combination of technologies such as Physics-informed Neural Networks, Self-supervised Learning, and Domain Adaptation enables robust fault detection and diagnosis even with limited failure data.



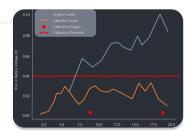
#### **Sustained Performance**

Field issue

Performance decline of initial prediction models due to aging of components or systems.

Solution

Data-Driven Model Evolution: Continuous Learning and Model Updating for Optimal Performance.



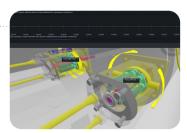
#### Real-time Simulation for Immediate Insights

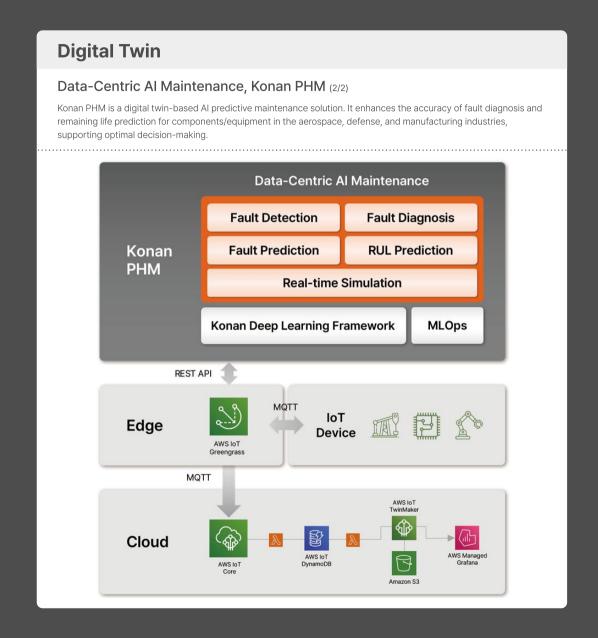
Field issue

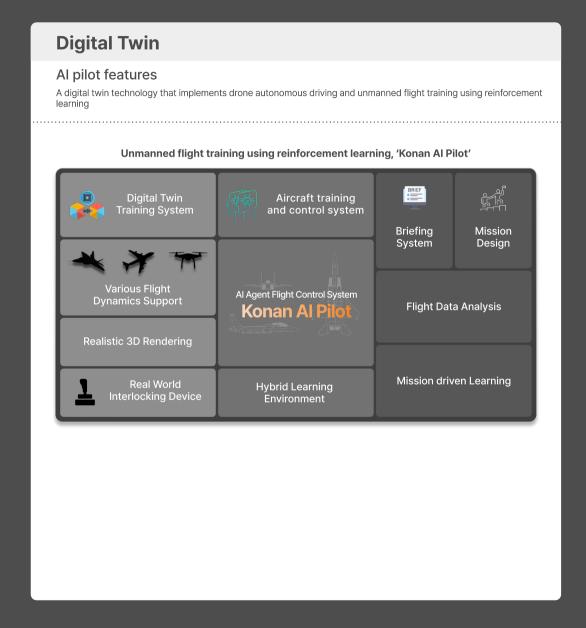
Simulation Latency at the operational phase.

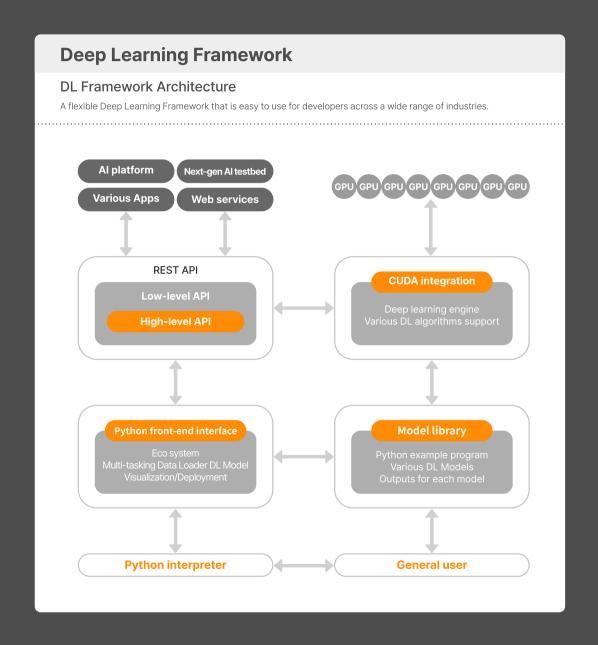
Solution

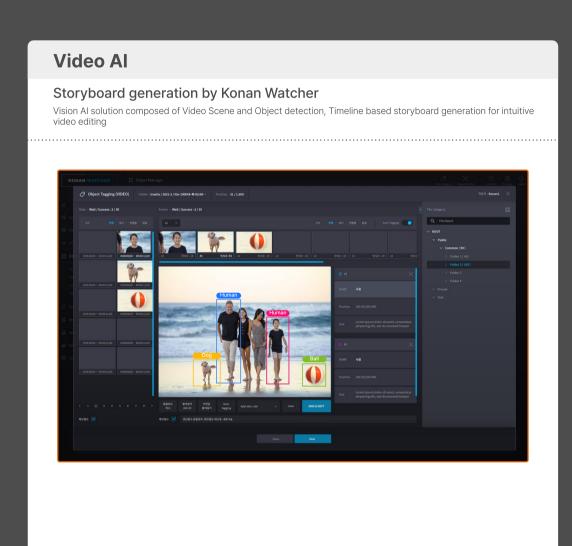
Enabling Real-time Simulation with Neural Operator technology. Our data-driven simulation solution empowers Faster Decision-making.

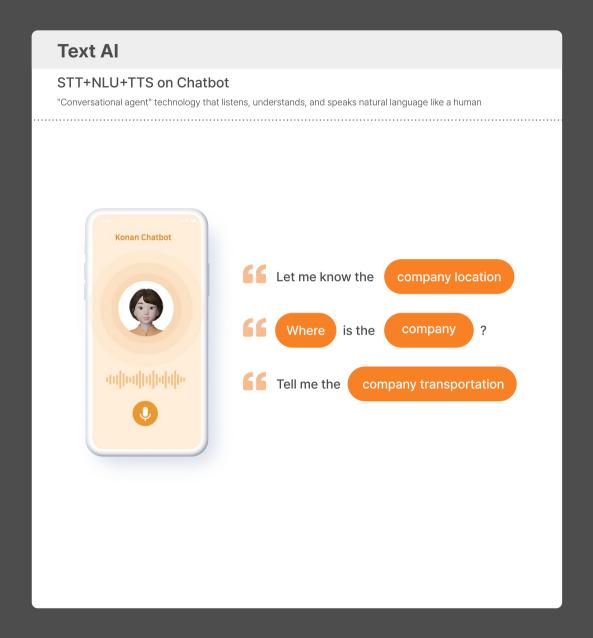










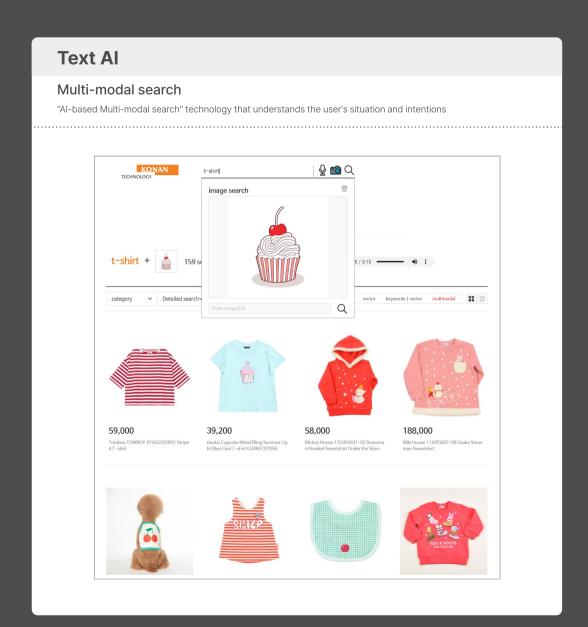


#### **Text Al**

#### NLG by pulse K

"NLG(Natural Language Generation)" technology applied to a billion-scale unstructured social data analysis service

# It is the result of analyzing the distribution of emotions related to pulses by subdividing them into 14 types with a deep learning artificial intelligence model. Sentiment for "Chat" is mainly distributed in categories such as "good" (41%), "fun" (11%), "expectation" (11%), "goy" (8%), and "dislike" (8%) on an aggregate basis. By channel, Twitter, News, and Cafe had a preponderance of sentiment in the likable category, while only in the community. \*\*Expectation\*\* Chat\*\* dislike\*\* joy pulses:



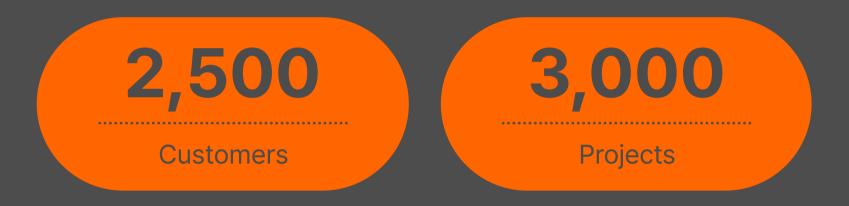
# Company Overview

Konan Technology is an Al software company. Established in 1999, Konan Technology focuses on unstructured big data analysis technology for over 25 years.

Company Name	Konan Technology Inc.
CEO	Young Sum Kim
Date of Establishment	April 1999
Core Technologies	Text AI, Video AI, Digital Twin
Key Products	Konan LLM, Konan Search/Analytics/Chatbot, Konan Watcher, Konan Voice, PHM, Al Pilot
No. of Employees	245
Address	327, Gangnam-daero, Seocho-gu, Seoul
Corporate Type	KOSDAQ-Listed Company

#### Customer

Based on the accumulated consumer trust for over 25 years, Konan Technology has secured more than 2,500 customers ranging from large corporations such as Hyundai Motor Company, Samsung Electronics, and SK Telecom to public institutions.





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# Company History

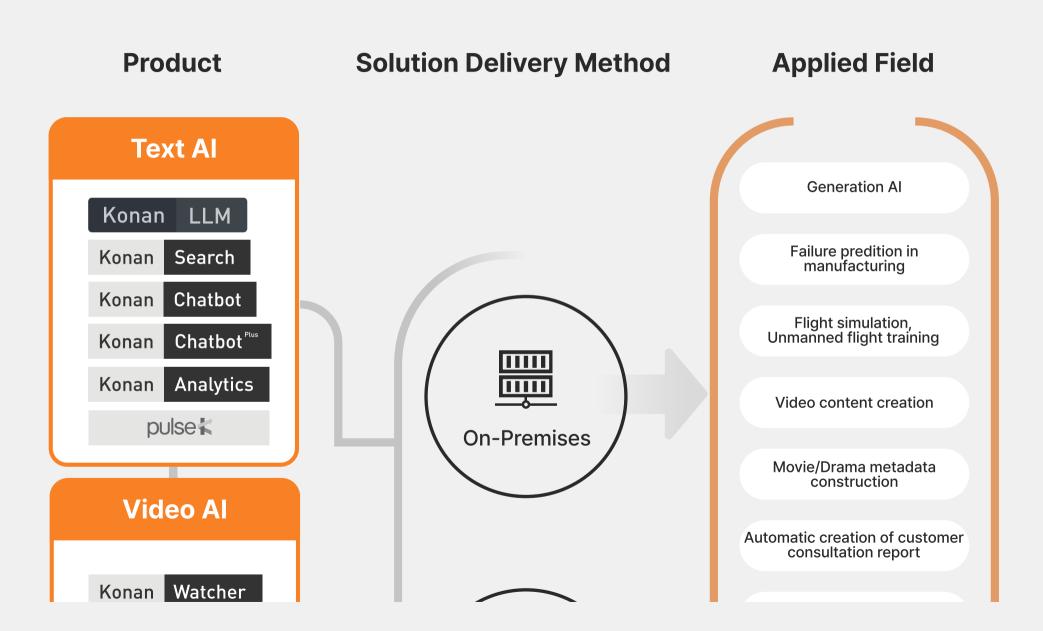
For the past 20 years, we have built a strong technology foundation in the unstructured data analysis field. For the upcoming 10 years, we will write history as an leading Al company related to image, voice and text.

2024	Contract 'Generation Al Project' with Korea Southern Power Corporation
	Honored with the Minister's Prize at the Korea Al Industry Awards
	Selected as an 'Emerging AI+X Top 100 Company' for 4 consecutive years
2023	Selected as <sup>r</sup> Defense Innovative Company 100 <sub>J</sub>
	Completion of the 'Defense Intelligent Platform' project for R.O.K MND
	Released document generation AI, 'Konan LLM'
2022	Konan Technology (402030) listed on KOSDAQ
	Business agreement with 'KAI' to strengthen AI-based aerospace technology
2017	Started applying AI technology to commercial products
2009	Provide video-search technology for Nate Portal
2007	Provide integrated search services for Nate Portal and Cyworld
2006	Business alliance with SK Communications established
2005	Overseas incorporated company Konan Digital Inc. established
2004	Launched SBS Digital News based on 'Konan DigitalArc'
2001	Konan image-searching technology selected as MPEG7 international standard
1999	Konan Technology established



#### Business Information

Konan Technology focuses on technology commercialization to develop AI that 'watch, listen, understand, and speak' like human-beings do.





# **Digital Twin**

Konan PHM

Konan Al Pilot

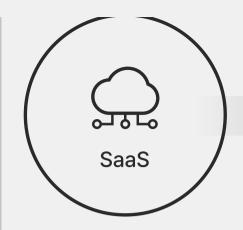
# **Foundation**

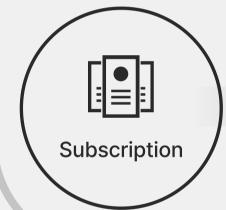
Konan MLOps

**a**dtrain

Konan DTw

Konan Language





Real-time video generation

E-commerce multi-modal search

Election results prediction

Market risk sensing and management

Anomaly detection/response

Video lecture subtitle generation

Personalized recommendation

Medical diagnosis side effect prediction

Digital forensics

#### **Featured Products**

#### Text Al

To understand the intention of the speaker.



Konan LLM is an on-premise 'Document Generation Al' for B2B/B2G. It boasts Korean document generation having the largest number of Korean tokens. Also, it provides accurate and well-founded answers through self-developed Vector Search engine-based RAG.

# Konan Search

**Konan Search** is an "Al-based multimodal search engine" that understands the user's situation and intentions.

You can search by taking a picture without typing, and you can search for synonyms / similar expressions by vector search without using a synonym dictionary.

# Konan Chatbot

**Konan Chatbot** is an Al-based conversational agent that upgrades businesses by providing high quality conversational services.

It provides conversational services that are based on natural language understanding, text mining, machine learning, and deep learning technologies.

# Konan Chatbot Plus

Konan Chatbot Plus is an Al-based translation service that allows real-time conversations in various languages. It provides more natural communication with foreigners in their native language through high-quality speech recognition and machine translation technology.

# Konan Analytics

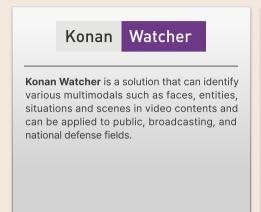
Konan Analytics is an 'intelligent text analytic engine' that discovers business insights through structured and unstructured data analysis using machine learning, AI, and data science based technologies.

#### pulse≰

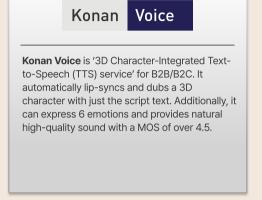
**pulse-K** is a real-time analytic service that analyzes current online issues and finds business signals using Al-based data science technology.

#### Video Al

Recognize objects in video, such as people, faces, voices, and situations, to understand the context of video scene.



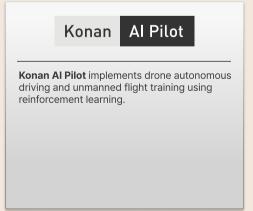




#### **Digital Twin**

System diagnosis, prediction, and optimal decision-making by PBDL and RL with digital twins.





## Leadership



# Youngsum Kim CEO

Ph.D. in electrical and communications engineering, Hanyang University Senior Researcher, ETRI Bellcore Research from U.S.A

Youngsum Kim, he has been asked his top business priorities, he always replies"Our people are our top competitve advantage."

Under this management philosophy, he has built a strong organizational culture based on autonomy. And he has focused on artificial intelligence business development that encompasses image, voice and text from its inception to the present.



# Seunghyun Yang сто

Ph.D. in Computer Science, Seoul National University Senior Researcher, ETRI IBM Natural Language Processing Researcher, Seoul National University SKT CTO concurrently

Seunghyun Yang has directed the company's technology innovation based on the principle of creating well-made products that are minimalistic and faithful to the basic function of the product.

As a result, It has become the only Al software company in Korea that uses its own 'K-language' as its source code and trains Al models with its own deep learning framework.

# Leadership



# Deokho Yoon Vice President

Ph.D. in Computer Science, Seoul National University Professor, Hannam University

Deokho Yoon is in charge of developing a flexible deep learning framework for next-generation AI research and development.

Additionally, he had led the development of ""SBS Digital Newsroom System"" that adopted a digital TV news production system for the first time in South Korea.



# Youngchang Song CFO

Bachelor of Laws, Seoul National University KTB, Heungkuk Life Insurance

Youngchang Song has a background in excellent investment management and has over 29 years of experience in the financial field.

Before joining Konan Technology, he was in charge of investment management at KTB Network and management planning at Heungkuk Life.

## Leadership



# Wantaek Lim Managing Director

Bachelor of Computer Science and Statistics, Seoul National University Head of Mobile Division, KTH Senior Invited Researcher, KISTI

Wantaek Lim is a strategic planning expert with over 10 years of experience. Prior to joining Konan Technology, he was in charge of the mobile businesses such as Pudding Camera, Pudding Face Recognition service, location-based SNS service "I'm in", at KTH.



# Jungju Choi Executive Director

Ph.D. in Computer Science, Postech Professor, Department of Media at Ajou University Senior Researcher, ETRI Academic Chairperson, Korea Computer Graphics Society

Jungju Choi is the head of research and development for digital twin and metaverse technologies. He has a number of research achievements and publications in computer graphics, such as standardization of '3D digital human models' and 'Haptic rendering to improve immersion'.