Agentic AI Producing

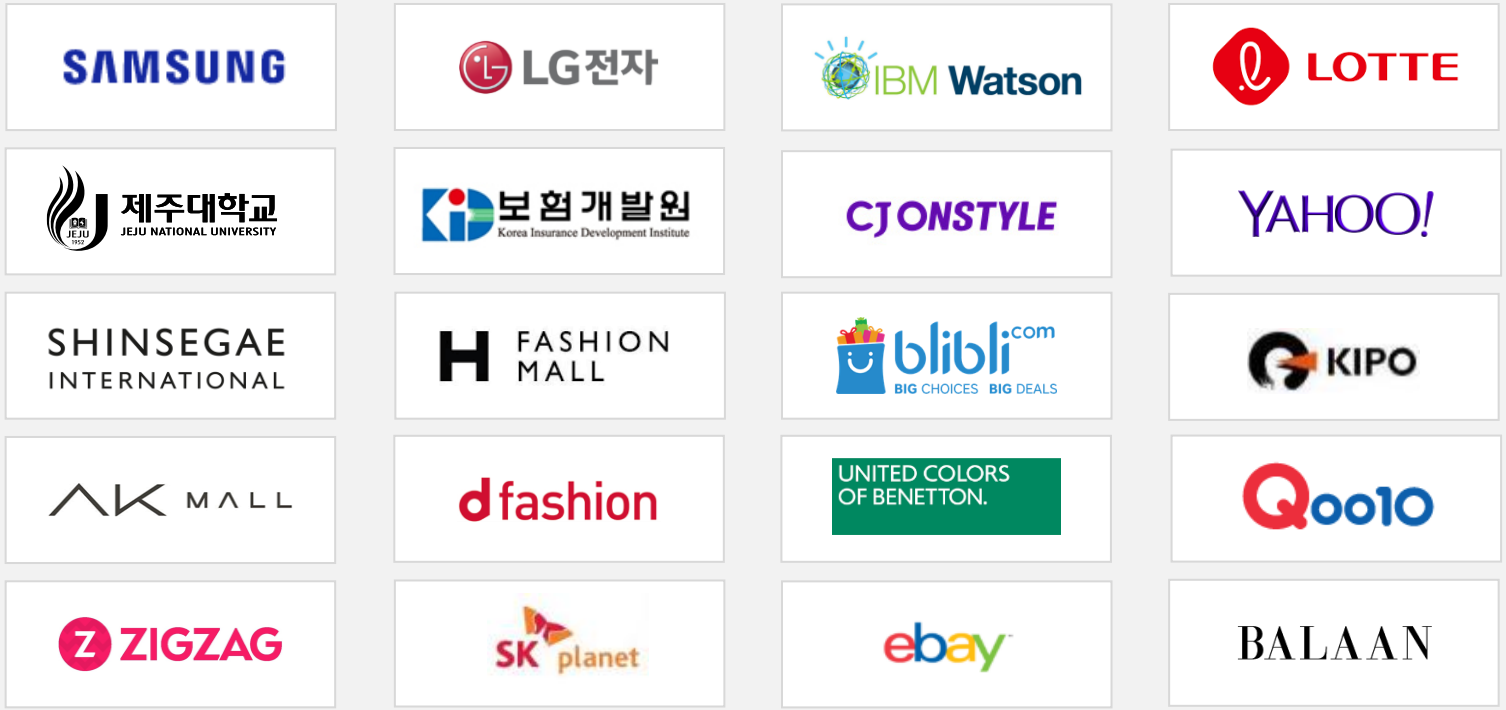
Built on Multi-modal Intelligence

Oddconcepts

hello@oddconcepts.kr

From AI Problem Solving to Agentic Execution

Building on AI-driven problem-solving experience across industries,
we are expanding beyond analysis and prediction into Agentic AI that understands and executes real workflows.



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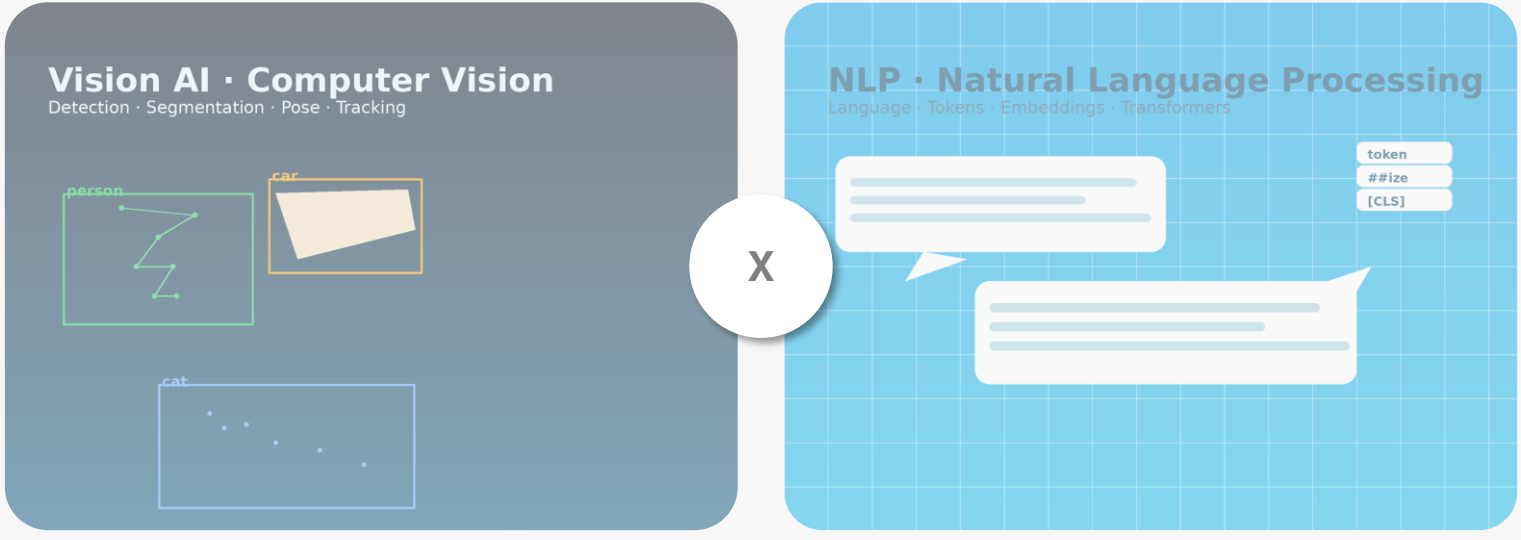
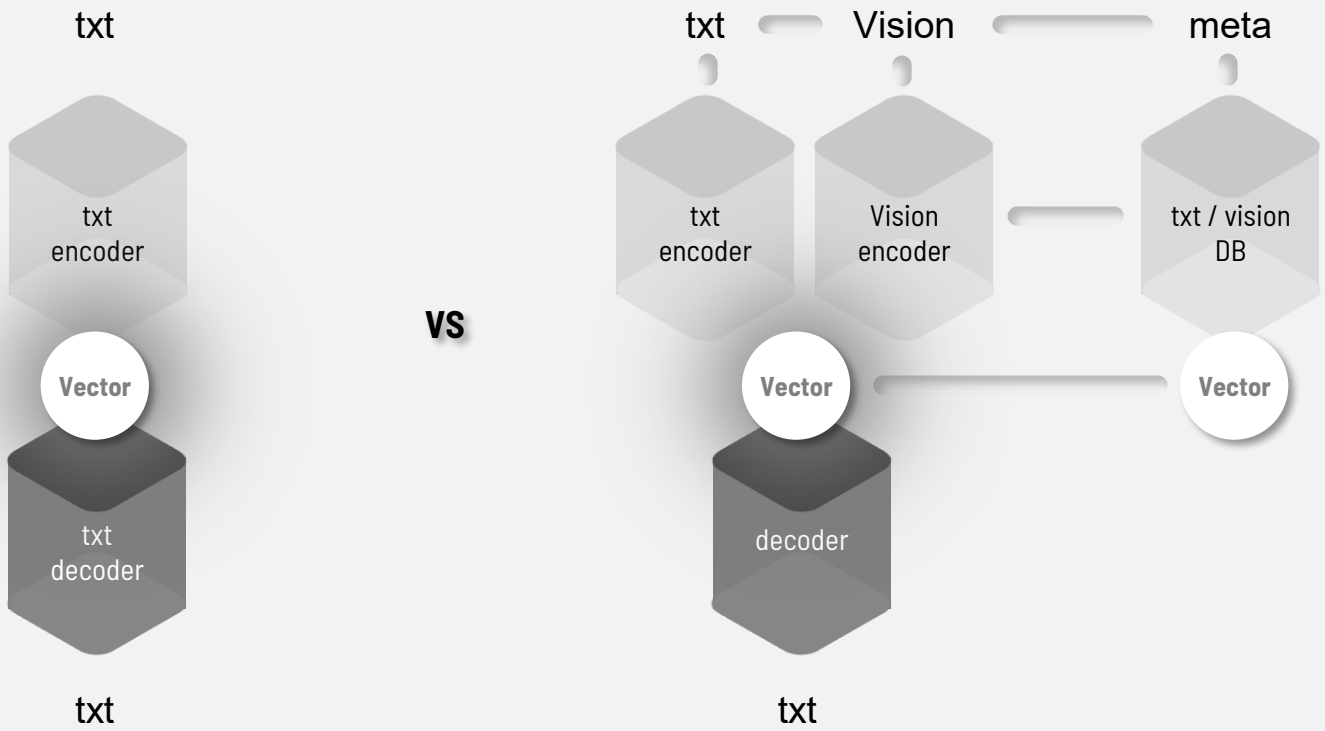
VXL : Agentic AI Producing Services

Leveraging multimodal technology that integrates vision and language, VXL builds enterprise agents that move beyond the conventional analysis of text-only data to complexly understand images and on-site contexts, enabling them to reason and make decisions.



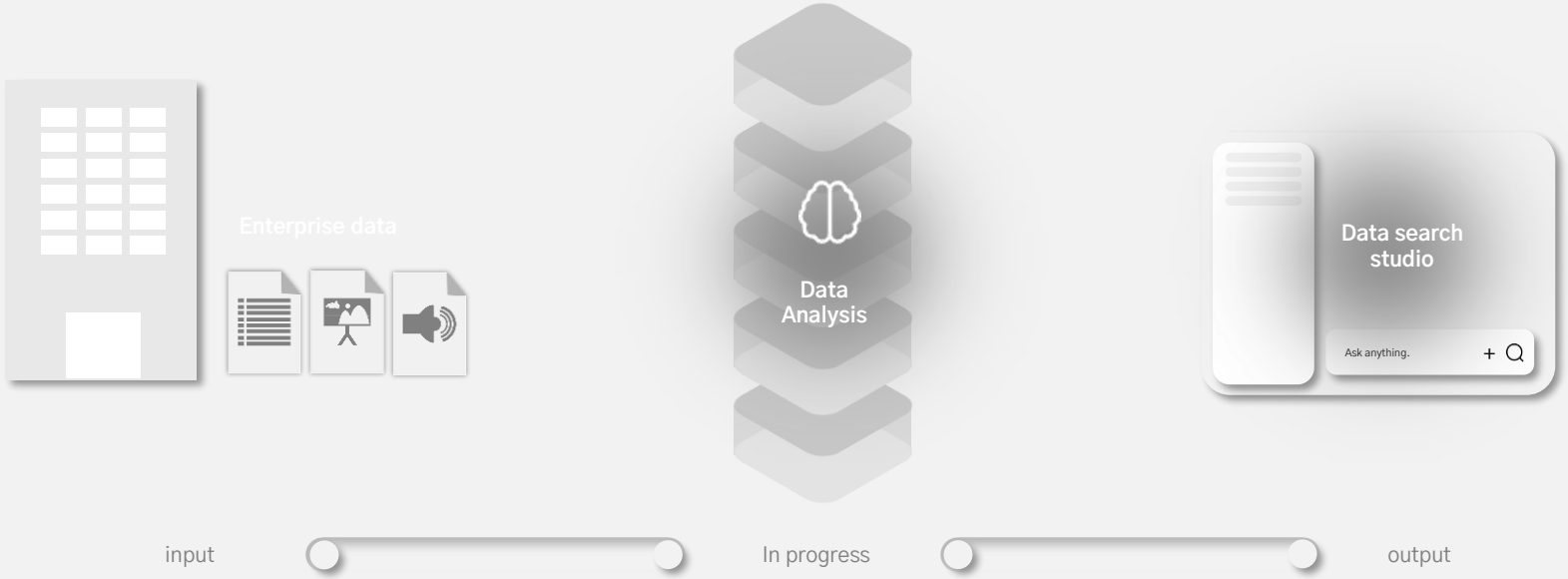
VXL : Why Agentic AI, Not Just LLM

VXL is far more than a simple Q&A tool; it performs deep reasoning and computation over complex enterprise data and workflows.



VXL : Multi-modal Grounding & Retrieval

VXL integrates siloed enterprise data across text, images, and vectors, enabling it to master internal workflows and autonomously execute business tasks based on deep contextual reasoning.



VXL : Custom Agent Model Engineering

VXL builds specialized, custom AI agents by integrating disparate enterprise data—text, images, and vectors—to master internal knowledge and autonomously execute complex business tasks.



Training: domain-specific fine-tuning

Data pre-training / fine-tuning
-> internalized as assets

Understanding: summarization & VISION RAG

Vectorize multimodal data such as documents, images, and code
-> improve search accuracy, summary quality, and work efficiency

Perception : vision task

Structure real-time camera data
-> anomaly detection, automated monitoring, etc.

Detection: information structuring

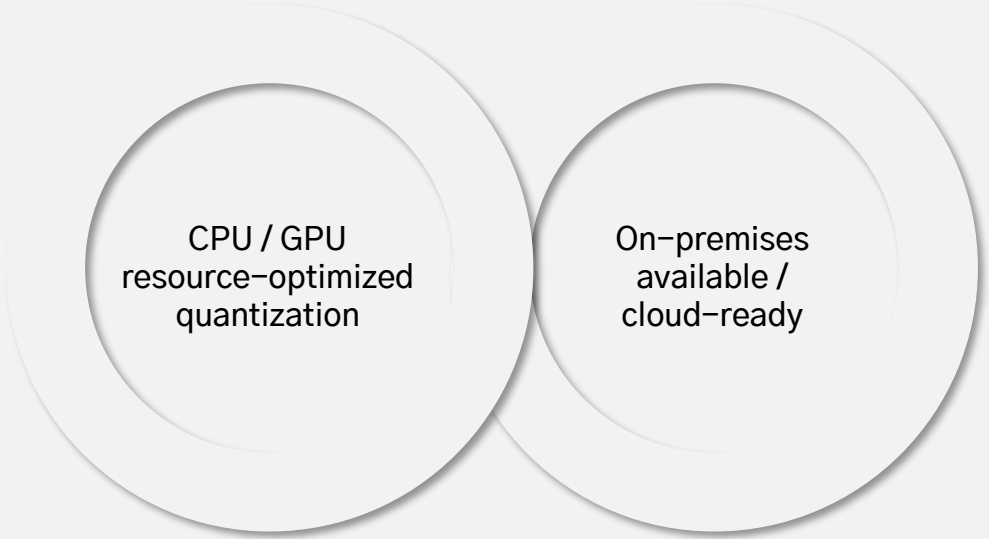
Structure information objects in images / PDFs, etc.
-> document extraction, specific-area detection, etc.

Reasoning / Prediction / Decision: automated optimal decisions

Reasoning that reflects real-time data and complex variables
-> automate inventory / demand forecasting, etc.

AI Technology : Enterprise-ready Deployment & Optimization

Designed for both on-premises and cloud environments,
VXL provides resource-optimized AI agents ready for immediate real-world deployment.



VXL : Key Features for Enterprise Agents

Domain-specific expertise, optimized performance, full customization, and rapid deployment define VXL's core competitive edge.

Domain – First

Through domain-specific design, we prioritize and optimize the core functions essential for commerce success.



Extreme – Performance

Driving peak performance through proprietary AI research and advanced methodology reviews.

Fully – Customizable

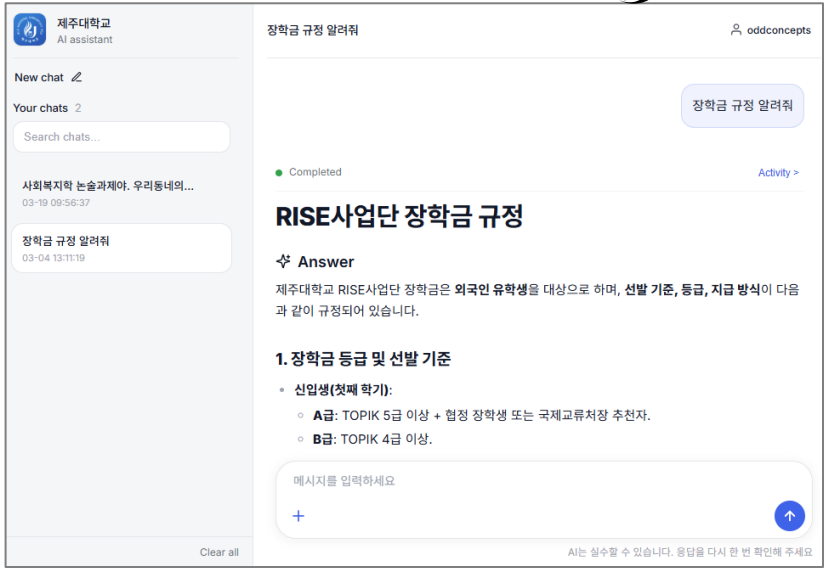
Focused on 'AI Producing' to craft original, partner-specific AI agents.

Plug & Play

Seamlessly serve model weights and inference code through instant integration, eliminating complex setups and resource overhead.

CASE 1 (Jeju National University)

Enterprise Knowledge Agent: Dedicated Enterprise Knowledge Assistant



Project Scope

VXL builds custom enterprise AI services that transform internal and external documents—including HWP, Word, and PDF—into actionable knowledge to power search, Q&A, summarization, and drafting.

Challenge

Scattered enterprise data across disparate systems makes information retrieval difficult, leading to inconsistent response quality dependent on individual expertise. Furthermore, general-purpose AI fails to capture the unique, mission-critical context of the company.

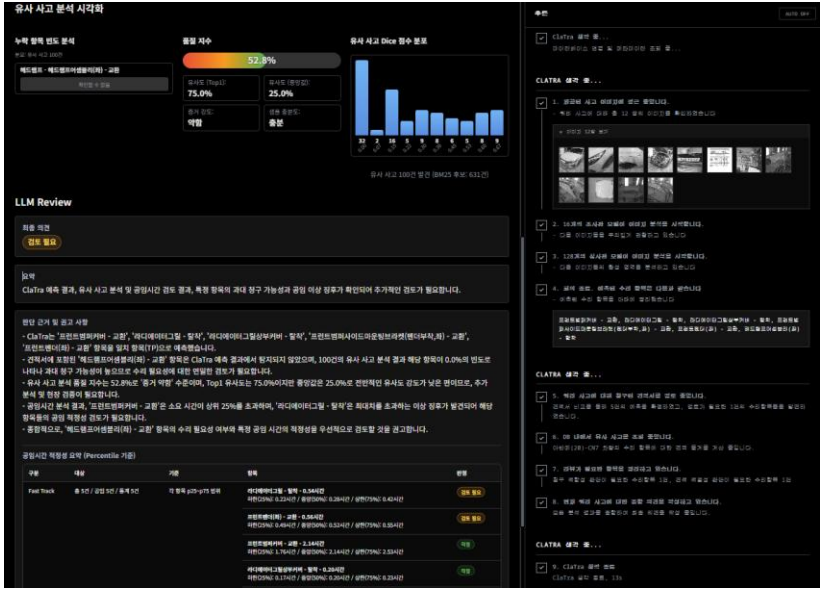
Solution

By implementing Enterprise RAG to unify internal and external document searches, VXL empowers LLMs to generate context-aware answers and drafts—drastically reducing search time and driving end-to-end workflow automation.

CASE 2 (Insurance Development Institute)

Visual Reasoning Agent: Repair Estimate Prediction for Damaged Vehicles

보험개발원 Korea Insurance Development Institute



Project Scope

Predicts repair costs from vehicle damage images and establishes standard criteria to prevent disputes between insurers, customers, and repair shops.

Challenge

Legacy systems suffered from significant discrepancies between damage detection and actual cost estimation, rendering them impractical for insurer operations.

Solution

By integrating Visual RAG with generative reasoning, VXL delivers image-grounded cost estimation and identifies potential overclaiming, significantly enhancing cost-review efficiency.

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CASE 3

AI Shopping Agent: Intent-driven Shopping Assistance

A next-generation commerce agent that delivers proactive exploration, comparison, and recommendations by deeply grasping user context and intent.

User Input



Going to an outdoor wedding this weekend, but it's looking a bit chilly. I need to stay warm while still looking formal.

Deep Analysis



Unstructured data:
Product Images, Packaging, Reviews

Data Fusion:
external (season/trends) + internal (purchase history / preferences)

Reasoning



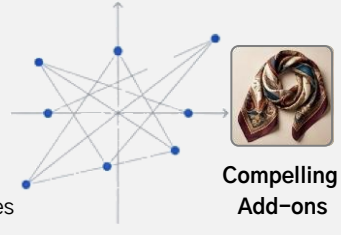
Causal Filtering:
Logical Validation of "Why it's needed"

Cross-Category Expansion:
beyond single-category boundaries

Output



Best-fit Picks



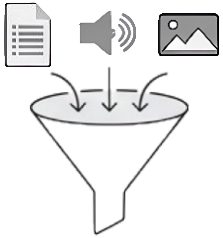
Compelling Add-ons

CASE 4

IP Protection Agent: IP Protection & Rights Management Agent

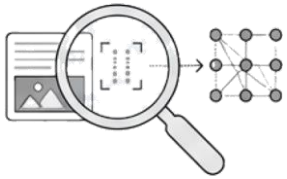
Collects large-scale unstructured web and social-media data in real time and uses multimodal reasoning to detect IP infringement (artist deepfakes, impersonation, copyright violations), enabling automated reporting and evidence capture.

Input
Real-time
SNS data collection



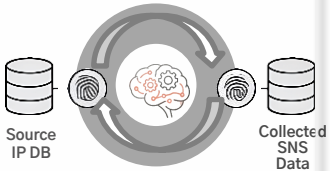
- Real-time monitoring across major web channels (Instagram, YouTube, etc.)
- Multi-modal crawling of complex unstructured data

Deep Analysis
Multimodal information structuring / recognition



- **Vision Task :** Precision detection of logos and packaging designs
- **Contextual Understanding :** OCR text extraction and sentiment-based intent analysis

Reasoning
Compare with source DB and determine illegality



- **Vision RAG:** Real-time IP verification via proprietary vector DB
- **High-level Reasoning:** Distinguishing parody/criticism from malicious intent

Output
Automated reporting
& evidence capture



- **Automated Action:** Instant reporting and takedown requests upon confirmation
- **Evidence Assetization:** Structured reporting with screenshots and timestamps

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CASE 5 (IBM, Shinsegae, CJ, and other fashion e-commerce projects)

Commerce Intelligence AI: Advanced Product Analysis & Recommendation

IBM

SHINSEGAE INTERNATIONAL · H FASHION MALL · CJ ONSTYLE · AK MALL · UNITED COLORS OF BENETTON. · Qoo10 · d fashion · BRANDI

Challenge

IBM needed to bridge the performance gap in the fashion domain while delivering services to Lotte.com.

Solution

Successfully optimized the project by integrating our proprietary fashion analysis and recommendation engine into IBM Watson.

Challenge

While global e-commerce companies sought advanced product analysis, the high visual complexity of fashion data often led to subpar performance in conventional recommendation engines.

Solution

VXL developed Korea's first Vision AI optimized specifically for fashion, successfully delivering tailored analysis and recommendation services to major enterprises and leading e-commerce platforms.

CASE 5 (Samsung, LG Electronics, and eBay commerce projects)

Perception AI: Automated Visual Recognition & Information Extraction

SAMSUNG

Project Summary

Developed algorithms for product part recognition and spatial analysis (size/positioning) from camera inputs.

Project Outcome

Achieved a 93.24% average recognition rate across 5,800 samples for 8 product types, exceeding all target metrics.

** Early core model for Samsung Bixby

LG전자

Project Summary

Engineered a detector and algorithm capable of extracting robust descriptors even from blurry, low-quality images.

Project Outcome

Attained a 96.67% recognition rate, successfully validating the feasibility of the advanced research.

ebay SK planet KIPO

Project Summary

Executed image-to-text conversion and detection of manipulated videos, including element extraction for trademark similarity searches.

Project Outcome

Exceeded all performance targets across every project.

AI Technology : Research-proven Multi-modal Intelligence

Oddconcepts delivers services based on vision and language research validated through papers and benchmarks, and continues to grow today.

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EMNLP paper accepted

Research

NLP research on machine understanding of conversational context.

Impact

Generates synergies with image analysis for more precise, multi-modal results.

WACV paper accepted

Research

Deep learning-based image retrieval, achieving State-of-the-Art (SOTA) performance.

Impact

Significant leap in image-based search performance.

LREC paper accepted

Research

Proposed text analysis methodologies leveraging open-source corpora.

Impact

Enhances analytical precision through integration with vision technology.

ICPR paper accepted

Research

Granular image research using fashion attributes to achieve SOTA performance.

Impact

Optimized search performance for e-commerce by weighting key attributes.

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Research Foundation 1 : Attribute-aware Retrieval

Achieved State-of-the-Art (SOTA) performance by surpassing Alibaba & ZJU's 'ASEN' (AAAI 2020). Our research on 'Two-step Attention & Convolutional Attribute Masks' delivers superior retrieval precision optimized for real-world e-commerce by effectively weighting key fashion attributes.

* Accepted to ICPR

Method	Backbone	mAP	mAP for each attribute							
			skirt length	sleeve length	coat length	pant length	collar design	lapel design	neckline design	neck design
Random baseline [2]	ResNet50	15.79	17.20	12.50	13.35	17.45	22.36	21.63	11.09	21.19
Triplet network [2]	ResNet50	38.52	48.38	28.14	29.82	54.56	62.58	38.31	26.64	40.02
CSN [1]	ResNet50	53.52	61.97	45.06	47.30	62.85	69.83	54.14	46.56	54.47
ASEN [2]	ResNet50	**61.02**	**64.44**	**54.63**	**51.27**	**63.53**	**70.79**	**65.36**	**59.50**	**58.67**
CAMNet	ResNet50	54.09	63.69	47.45	48.20	**66.09**	69.51	42.63	48.31	55.25
CAMNet + 1st + 2nd	ResNet50	**61.97**	64.14	**56.22**	**53.05**	**65.67**	**72.60**	**67.74**	**63.05**	**61.97**
CAMNet	HRNet	60.58	**67.42**	51.50	**53.03**	**71.10**	**78.49**	**69.88**	49.63	**65.45**
CAMNet + 1st + 2nd	HRNet	**66.37**	**68.23**	**58.08**	**60.86**	**68.74**	**78.32**	**73.63**	**65.96**	**68.02**

Research Foundation 2 : Attention-based Retrieval

Achieved SOTA performance by pioneering the integration of global-local and spatial-channel attention. Our research, 'All the Attention You Need,' is the first to successfully combine these four dimensions, surpassing prior benchmarks in image retrieval precision.

* Accepted to WACV

Method	Train Set	Dim	Base		Medium						Hard							
			Ox5k	Par6k	$\mathcal{R}$Oxf		+$\mathcal{R}$1M		$\mathcal{R}$Par		+$\mathcal{R}$1M		$\mathcal{R}$Oxf		+$\mathcal{R}$1M		$\mathcal{R}$Par		+$\mathcal{R}$1M	
			mAP	mAP	mAP	mP	mAP	mP	mAP	mP	mAP	mP	mAP	mP	mAP	mP	mAP	mP	mAP	mP
SPoC-V16 [2, 35]	[O]	512	53.1*	–	38.0	54.6	17.1	33.3	59.8	93.0	30.3	83.0	11.4	20.9	0.9	2.9	32.4	69.7	7.6	30.6
SPoC-R101 [35]	[O]	2048	–	–	39.8	61.0	21.5	40.4	69.2	96.7	41.6	92.0	12.4	23.8	2.8	5.6	44.7	78.0	15.3	54.4
CroW-V16 [24, 35]	[O]	512	70.8	79.7	41.4	58.8	22.5	40.5	62.9	94.4	34.1	87.1	13.9	25.7	3.0	6.6	36.9	77.9	10.3	45.1
CroW-R101 [35]	[O]	2048	–	–	42.4	61.9	21.2	39.4	70.4	97.1	42.7	92.9	13.3	27.7	3.3	9.3	47.2	83.6	16.3	61.6
MAC-V16-Siamese [36, 35]	[O]	512	80.0	82.9	37.8	57.8	21.8	39.7	59.2	93.3	33.6	87.1	14.6	27.0	7.4	11.9	35.9	78.4	13.2	54.7
MAC-R101-Siamese [35]	[O]	2048	–	–	41.7	65.0	24.2	43.7	66.2	96.4	40.8	93.0	18.0	32.9	5.7	14.4	44.1	86.3	18.2	67.7
RMAC-V16-Siamese [36, 35]	[O]	512	80.1	85.0	42.5	62.8	21.7	40.3	66.2	95.4	39.9	88.9	12.0	26.1	1.7	5.8	40.9	77.1	14.8	54.0
RMAC-R101-Siamese [35]	[O]	2048	–	–	49.8	68.9	29.2	48.9	74.0	97.7	49.3	93.7	18.5	32.2	4.5	13.0	52.1	87.1	21.3	67.4
RMAC-R101-Triplet [16, 35]	NC-clean	2048	86.1	**94.5**	60.9	78.1	39.3	62.1	78.9	96.9	54.8	93.9	32.4	50.0	12.5	24.9	59.4	86.1	28.0	70.0
GeM-R101-Siamese [37, 35]	SfM-120k	2048	**87.8**	92.7	64.7	84.7	45.2	71.7	77.2	98.1	52.3	95.3	38.5	53.0	19.9	34.9	56.3	89.1	24.7	73.3
AGeM-R101-Siamese [17]	SfM-120k	2048	–	–	67.0	–	–	–	78.1	–	–	–	40.7	–	–	–	57.3	–	–	–
SOLAR-GeM-R101-Triplet/SOS [28]	GLDv1-noisy	2048	–	–	69.9	**86.7**	53.5	**76.7**	81.6	97.1	59.2	94.9	47.9	**63.0**	29.9	**48.9**	64.5	**93.0**	33.4	**81.6**
DELG-GeM-R101-ArcFace [5]	GLDv1-noisy	2048	–	–	73.2	–	**54.8**	–	82.4	–	**61.8**	–	51.2	–	**30.3**	–	64.7	–	**35.5**	–
GeM-R101-ArcFace [53]	GLDv2-clean	2048	–	–	**74.2**	–	–	–	**84.9**	–	–	–	**51.6**	–	–	–	**70.3**	–	–	–
GLAM-GeM-R101-ArcFace baseline	GLDv2-clean	512	91.9	94.5	72.8	86.7	58.1	78.2	84.2	95.9	63.9	93.3	49.9	62.1	31.6	49.7	69.7	88.4	37.7	73.7
+local	GLDv2-clean	512	91.2	95.4	73.7	86.2	60.5	77.4	86.5	95.6	68.0	93.9	52.6	65.3	36.1	55.6	73.7	89.3	44.7	79.1
+global	GLDv2-clean	512	92.3	95.3	77.2	87.0	63.8	79.3	86.7	95.4	67.8	93.7	57.4	69.6	38.7	57.9	75.0	89.4	45.0	77.0
+global+local	GLDv2-clean	512	94.2	95.6	78.6	88.2	68.0	82.4	88.5	97.0	73.5	94.9	60.2	72.9	43.5	62.1	76.8	93.4	53.1	84.0

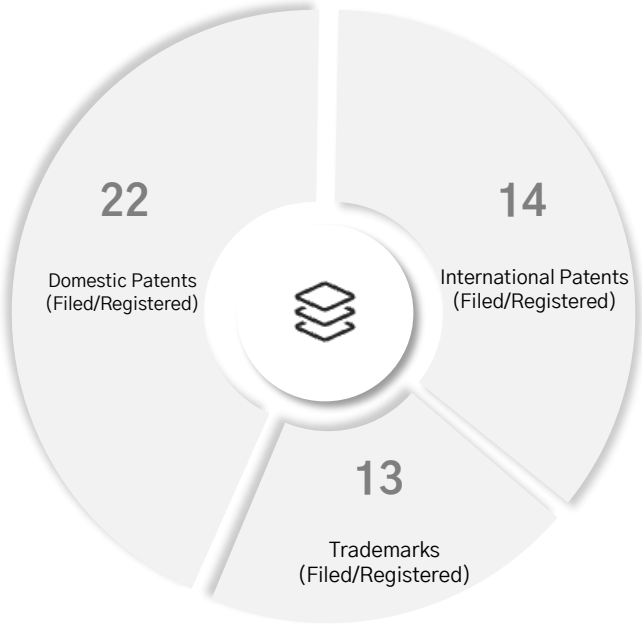
Awards & Recognition

We have proven our competitiveness by simultaneously accumulating technological achievements and real-world market validation.

- 2023 Korea Industry Awards K-Startup GP (3rd year)
- 2022 Korea AI Awards NIPA Award (3rd year)
- 2021 Korea AI Startup Top 100
- 2021 Korea Industry Awards K-Startup GP (2nd year)
- 2020 Korea AI Awards Fashion GP (2nd year)
- 2020 Korea Industry Awards K-Startup Grand Prize
- 2019 Korea AI Awards Fashion Grand Prize
- 2018 NIA DNA Top 100
- 2016 Samsung product-photo model-name recognition BMT #1
- 2015 Startup Top 100
- 2014 DEVIEW: Small but Strong Tech Startup
- 2013 LG fridge-camera retail recognition BMT #1
- 2013 KIPO trademark search engine BMT #1
- 2013 Video search engine BMT #1
- 2012 Global SW Contest SK Planet Award
- 2012 OCR video preprocessing engine BMT #1

IP Portfolio 49

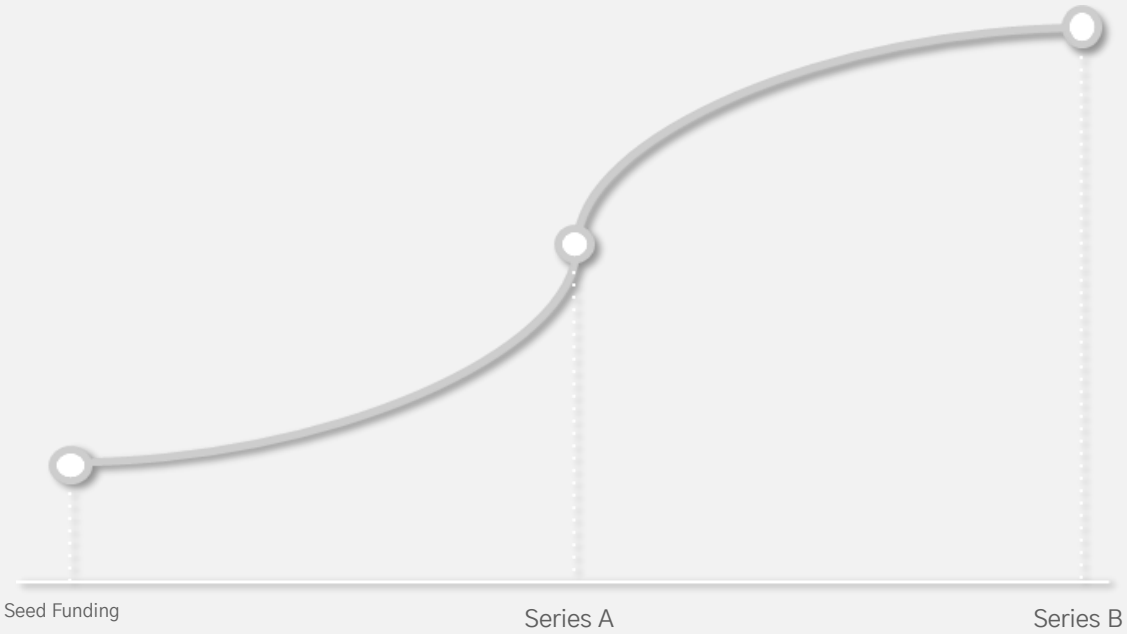
We have secured 49 intellectual property rights, focused on domestic and international patents and trademarks.



Validation : Investor Confidence

We have secured a total of 13.2 billion KRW in investment, backed by deep trust in our technological prowess and service marketability.

KB증권 KB Investment SBI 인베스트먼트 키움인베스트먼트 STONEBRIDGE coopl next KDB산업은행 HB INVESTMENT TIGER



Next Direction : Autonomous Agentic AI Pipeline

Our next milestone is the ‘End-to-End Agentic Producing Pipeline,’ an autonomous system that orchestrates everything from task definition and data generation to training and deployment.

Autonomous Agentic AI Pipeline

