Sangin Lee

M.S. Student · Sejong University

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Education

Sejong University — *Seoul, South Korea*

M.S. in AI Robotics — *Mar. 2024 – Aug. 2026*

- Advisor: Prof. Yukyung Choi
- GPA: 4.5/4.5

Sejong University — *Seoul, South Korea*

B.S. in Department of Software — *Mar. 2017 – Feb. 2024*

- Advisor: Prof. Jaewook Byun
- Major GPA: 3.46/4.5

Research Interests

Efficient AI · Multimodal Perception · Vision-Language Models

Publications

CLIP Tricks You: Training-free Token Pruning for Efficient Pixel Grounding in Large Vision-Language Models

Sangin Lee, and Yukyung Choi

- International Conference on Machine Learning (ICML) (Jul. 2026)

Multi-Modal Guided Multi-Source Domain Adaptation for Object Detection

Sangin Lee, Seokjun Kwon, Jeongmin Shin, Namil Kim, and Yukyung Choi

- Knowledge-Based Systems (Under Review)

INSANet: INtra-INter Spectral Attention Network for Effective Feature Fusion of Multispectral Pedestrian Detection

Sangin Lee, Taejoo Kim, Jeongmin Shin, Namil Kim, and Yukyung Choi

- Sensors (Feb. 2024)

Patents

Token Pruning for Efficient Pixel Grounding Based on Visual-Text Similarity

Yukyung Choi, and **Sangin Lee**

- Korea Patent, Pending, (May 2026)

Multi-Modal Guided Multi-Source Learning for Object Detection

Yukyung Choi, **Sangin Lee**, Seokjun Kwon, and Jeongmin Shin

- Korea Patent, Pending, 10-2025-0064651 (May 2025)

Attention-based Illumination-aware Multispectral Pedestrian Detection

Yukyung Choi, **Sangin Lee**, Dogyeong Kim, Taejoo Kim, and Hyeongjun Kim

- Korea Patent, Pending, 10-2023-0106387 (Aug. 2023)

Publications

Method for Multi-Source Domain Adaptation for Object Detection

Yukyung Choi, **Sangin Lee**, Seokjun Kwon, and Jeongmin Shin

- Apr. 2025

Research Projects

Development of 3D Sensor Fusion Technology for Improving Detection Performance of Unmanned Vehicles

Research Leader

- Jan. 2023 – May 2026 (Ongoing)

Development of AI-based high resolution low power smart camera and machine vision integrated solution for defect detection in manufacturing

Research Assistant

- Apr. 2023 – Dec. 2025

Study on magnetic map matching based localization and vision based anomaly detection algorithm for electrical plant surveillance robots

Research Leader

- Jan. 2021 – Dec. 2023

Honors & Awards

Nov. 2024	**Special Award (ETRI),** Autonomous Driving AI Challenge (MSIT)	*3rd Place*
Jun. 2023	**Honorable Mention,** Capstone Design (Sejong Univ.)	*3rd Place*
Fall 2017	**Honorable Mention,** Coding Challenge Week (Sejong Univ.)	

Teaching Experience

Sejong University

Spring 2024	**Deep Learning System**	*TA*
Winter 2023	**Undergraduate Research Program**	*Head TA*
Fall 2023	**Advanced C Programming**	*Head TA*
Spring 2023	**Machine Learning**	*TA*

Skills

Tech	**Python, C/C++, MATLAB, PyTorch, HuggingFace, Git, Docker**
Languages	**English** (OPIc IM1)