Seungjae Kim

M.S. Candidate

tmdwo8814@khu.ac.kr | Homepage | Google scholar

RESEARCH INTERESTS

Video Understanding
Multi-Object Tracking, Motion Prediction

3D Perception
3D Object Detection, BEV Representation, Point Cloud Processing

Novel View Synthesis
Neural Radiance Fields, 3D Gaussian Splatting

Transfer Learning & Adaptation
Few-shot Object Detection, Cross-domain Adaptation

EDUCATION

KyungHee University	Gyeonggi, Korea
M.S. in Software Convergence (Advised by Prof. Myeong-Ah Cho)	*Sep. 2025 – Aug. 2027 (Expected)*
Hanshin University	Gyeonggi, Korea
B.S. in Information and Communication Engineering	*Mar. 2019 – Aug. 2025*

- 2-Year Military Service (2020-2021)

WORK EXPERIENCES

Undergraduate Intern	Gyeonggi, Korea
Visual Science Lab, KyungHee univ. (Advised by Prof. Myeong-Ah Cho)	*Jul. 2024 – Aug. 2025*

PROJECTS

Development of a Multi-modal Alignment-based 3D Perception Foundation Model for Autonomous Driving	National IT Industry Promotion Agency (NIPA)
	Sep. 2025 – Dec. 2025

- Deep Learning Researcher
- 3D Object Detection, LiDAR&RGB Fusion

Development of AGI platform for multisensory social robot	Institute for Information Communications Technology Promotion (IITP)
	Apr. 2025 – Jan. 2026

- Deep Learning Researcher
- Few-shot Object Detection, Cross-domain Adaptation

Anomaly pre-detection and response for intelligent surveillance system: high-level interpretation and response based on the visual-language fusion	National Research Foundation of Korea (NRF)
	Sep. 2024 –

- Deep Learning Researcher

PUBLICATIONS

International Conference

[1] SeungJoon Lee*, Taeyoung Kim*, Useok Choi*, **Seungjae Kim**, Chanse Oh, MyeongAh Cho, "DB-Fusion: Dual-Balanced Sensor Fusion for MultiModal 3D Object Detection," *Under Review.*

[2] **Seungjae Kim**, SeungJoon Lee, MyeongAh Cho, "PlugTrack: Multi-Perceptive Motion Analysis for Adaptive Fusion in Multi-Object Tracking," *The Association for the Advancement of Artificial Intelligence (AAAI), 2026.*

Domestic Conference

[1] **Seungjae Kim**, Taeyoung Kim, YongHyun Gwon, MyeongAh Cho, "Efficient 3D Gaussian Splatting with Adaptive Depth Refinement in High-Confidence Regions," *Korea Software Congress (KSC)*, 2025.

[2] MyoungChul Kim, **Seungjae Kim**, Suyeon Kim, MyeongAh Cho, "Explainable Intelligent Surveillance Video System using Spatial Localization," *Korea Software Congress (KSC)*, 2025.

[3] SeungJoon Lee, Taeyoung Kim, **Seungjae Kim**, MyeongAh Cho, "BEV Segmentation Prior-Guided Class-Wise Attention for 3D Object Detection in Autonomous Driving," *Korea Software Congress (KSC)*, 2025.

[4] **Seungjae Kim**, Useok Choi, Hayoung Lee, MyeongAh Cho, "Future-Aware Nonlinear Prediction Module for Real-Time Multi-Object Tracking," *Korea Computer Congress (KCC)*, 2025.

[5] Useok Choi, **Seungjae Kim**, Chanse Oh, MyeongAh Cho, "Improving Latent Space in Consistency Distillation via Self-Generated Targets," *Korea Computer Congress (KCC)*, 2025.

[6] Junhee Lee, **Seungjae Kim**, Seungjae Choi, Wongyu Lee, MyeongAh Cho, "Analysis of Key Conditions for Generalizable Generated Video Detection," *Korea Software Congress (KSC)*, 2024.

PATENTS & SOFTWARE COPYRIGHTS

Patents

"Method and Apparatus for Generating 3D Scene Graph", KR-Registration NO.10-2025-0188361, Dec., 2025

Software Copyrights

"Improved Sound Source Localization Model through Audio Signal Enhancement", C-2025-035472

REFERENCE

Prof. Myeong-Ah Cho, Professor, KyungHee
Relationship: M.S. advisor
E-mail: maycho@khu.ac.kr