

# Eunchong Kim

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전문연구요원 편입 희망 (본인 T.O 보유)

## RESEARCH INTEREST

AI-based End-to-End Autonomous Driving & Perception Systems for Robotics

## EDUCATION

**Ulsan National Institute of Science and Technology (UNIST)** Ulsan, Republic of Korea  
M.S. in Artificial Intelligence Sep. 2023 – Current

- GPA: 4.05
- Expected Graduation: Feb. 2026
- Advisor: Prof. Jeong hwan Jeon (Robotics and Mobility Lab.)
- Thesis: End-to-End Autonomous Driving: Deployment-Oriented and Rule-Conformant Design

**Jacobs University Bremen (Currently Constructor Univeristy)** Bremen, Germany  
B.Sc. in Robotics and Intelligent Systems Sep. 2020 – Jun. 2023

- GPA: 1.52 / 1.0 (German Scale)  $\approx$  3.5 / 4.0 (U.S. GPA)
- Advisor: Prof. Francesco Maurelli
- Thesis: Event-Based Motion Segmentation and Stereo Feature Matching in Highly Cluttered Environments (Collaborative research with WasteAnt GmbH)
- Major Representative
- Merit-based Scholarship (€5,000 per year)

## PUBLICATIONS

Eunchong Kim, Heedon Jeong, Sungjun Heo, Sunhwi Kim, Seongjae Lee, Jaichan Shin, Heecheol Yoo, and Jeong hwan Jeon, "Deployment-Oriented End-to-End Autonomous Driving: Enhancing Closed-Loop Stability with a Lightweight Camera-Only Framework," in Proc. of the IEEE Intelligent Vehicles Symposium (IV), 2026. (Accepted)

## PROJECTS

**2025 Hyundai Motor Group Autonomous Driving Challenge** Oct. 2024 – Sep. 2025  
**1st Round: 3rd place** (₩5M Reward)  
**2nd Round: 1st place (Team leader)** (₩30M Reward, Recruitment perks, China Tech Tour)

- Developed a deployment-oriented End-to-End AD model, prioritizing closed-loop performance.
- Utilized DAGger to enhance model robustness in Out-of-Distribution scenarios, resolving the covariate shift issue in imitation learning.
- Achieved 16Hz inference speed on NVIDIA Jetson AGX Orin.

**BEV-based Lane Detection for ERP42** Dec. 2023 – Feb. 2024

- Developed and validated a lane detection framework using conventional computer vision techniques for ERP42 in UNIST.

Multi-Teacher Knowledge Distillation based Pedestrian Detection

Aug. 2023 – Dec. 2023

- Collected and labeled a custom dataset using pseudo-labeling techniques to maximize data efficiency and minimize labeling cost.
- Developed a real-time pedestrian detection model using MTKD, improving detection accuracy (over 16% mAP gain) compared to the fine-tuned model.

Truck-Discharging Waste Segmentation using Event Camera Data

Jan. 2023 – Jun. 2023

- Developed an event-based motion segmentation algorithm for the precise detection of anomalous waste in incineration plant environments.
- Implemented Event-RGB stereo matching techniques for robust 3D perception.

Event-based Vehicle Tracking in Highway Surveillance System

Jun. 2022 – Aug. 2022

- Developed a low-cost vehicle tracking algorithm (clustering and event-seeking based) for highway surveillance systems using an event camera for high efficiency.

DuckieTown Project

Feb. 2022 – May. 2022

- Developed lane and object detection framework (Fine-tuning on custom dataset).

AWARDS

Excellence Award | AI Tech Open Workshop (AI Graduate School)

Apr. 2025 – Sep. 2025

- Project Title: Development of an End-to-End Autonomous Driving Framework Using a High-Fidelity Simulator.
- ₩ 2,500,000 Reward

ACADEMIC  
EXPERIENCE

Reviewer | 2026 IEEE Intelligent Vehicles Symposium (IV)

Nov. 2025

WORK &  
TEACHING  
EXPERIENCES

Ulsan National Institute of Science and Technology

Teaching Assistant

Spring 2024, Spring 2025

- AI Programming I

Research Intern

Jun. 2022 – Aug. 2022

- Robotics and Mobility Lab.

WasteAnd GmbH

Working Student

Oct. 2022 – Jun. 2023

Jacobs University Bremen (Currently Constructor University)

Teaching Assistant

2021 – 2023

- Algorithms and Data Structures (C++)
- Programming in C/C++
- Embedded Systems
- Introduction to Robotics and Intelligent Systems Lab (Arduino)

## SKILLS

### Languages

- Korean ●●●●●
- English ●●●●●
- German ●●●○○

### Frameworks & Libraries

PyTorch, OpenCV, Pandas, NumPy

### Programming Languages

Python, C++, Matlab

### Tools & Platform

ROS, Git, Docker, MORAI simulator