

RESEARCH INTEREST	Autonomous Driving: End-to-End Stack & Perception Systems	
EDUCATION	Ulsan National Institute of Science and Technology (UNIST)	Ulsan, Republic of Korea
	M.S. in Artificial Intelligence	Sep. 2023 – Feb.2026
	<ul style="list-style-type: none">GPA: 4.05Advisor: 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
	<ul style="list-style-type: none">GPA: 1.52 / 1.0 (German Scale) ≈ 3.5 / 4.0 (U.S. GPA)Advisor: Prof. Francesco MaurelliThesis: Event-Based Motion Segmentation and Stereo Feature Matching in Highly Cluttered Environments (Collaborative research with WasteAnt GmbH)Major RepresentativeMerit-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)	
	<ul style="list-style-type: none">Drove iterative performance gains through a comprehensive feedback loop: Performance Analysis → Data-driven and model-centric improvements → Re-training & Evaluation.Developed an E2E model from scratch, targeted for NVIDIA Jetson AGX Orin. Balanced real-time performance and functionality by selectively integrating essential driving modules through trade-off analysis between computational cost and performance gains.Developed a training-only auxiliary module to resolve task-wise prediction conflicts in Multi-task Learning, ensuring physically plausible outputs without any inference overhead.Implemented a latency-aware labeling policy to compensate for the temporal gap between sensor input and actual actuation.Achieved a real-time inference speed of 16Hz on NVIDIA Jetson AGX Orin.Tech. Stacks: BEV Segmentation, 3D Object Detection, Vectorized Map Construction, Transformer-based Planning and Control.	

- 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 lightweight pedestrian detection model using MTKD to maximize performance within limited computational budgets; achieved a 16% mAP gain over standard fine-tuning while maintaining real-time inference.

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.

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