Dokeun Lee

Github | LinkedIn | Homepage | Google Scholar | peterehrms@unist.ac.kr

Research Interest

Reinforcement Learning, Motion Planning, Learning-Based Control, and Autonomous Driving.

Education

Sep. 2024 - present	M.S. in Electrical Engineering, UNIST Advisor: Jeong hwan Jeon	(GPA: 4.17/4.3)
Feb. 2019 - Aug. 2024	B.S. in Electrical Engineering, UNIST Advisor: Jeong hwan Jeon Thesis: Deep Reinforcement Learning for Multi-Tasking Robotic Arms in Isaac Gym	(GPA: 3.85/4.3)

Publications

Conferences

- **Attention-Based Reinforcement Learning for Context-Aware Path Tracking Control**
  Dokeun Lee, Jeonghwan Song, Hyojae Lee, Jeong hwan Jeon
  IEEE Intelligent Vehicles Symposium (IV), 2026
- **Reinforcement Learning-Based Approach for Real-Time Routing in Mobile Markets**
  Changju Kim, Jungeun Lee, **Dokeun Lee**, Jeong hwan Jeon
  Summer Annual Conference of IEIE, 2025

Preprints

- **Demonstrating a Vision-Based AI Robot for Strategic Board Games**
  Taehwan Kim*, **Dokeun Lee***, Seonghyeon Kim*, Yongjun Choi*, Sungjun Heo, Thi Thuy Ngan Duong, Kyungdon Joo, Namhun Kim, Jeong hwan Jeon, Hyemin Ahn
  (*: Equal Contributions)

Projects

Development of Reinforcement Learning-Based Automated Driving AI Software Technology for Optimal Driving Behavior Decision in Hazardous Situations on Congested Roads *Apr. 2024 – Dec. 2027*
Funded by IITP | Reinforcement Learning-Based Control Development

2025 Autonomous Driving AI Challenge *News*
3rd Place in Future Trajectory Prediction *Aug. 2025 – Oct. 2025*
Jeonghwan Song, Kyeongmin Do, ***Dokeun Lee***

Patents

System and Method for End-to-End Autonomous Driving Using a Reinforcement Learning-Based Control
Jeong hwan Jeon, ***Dokeun Lee****, Hyojae Lee* *Application in Aug. 2025*

Teaching & Working Experience

Ulsan National Institute of Science and Technology

EEE351 Automatic Control, Teaching Assistant	*Spring 2025*
MTH201 Differential Equations, Teaching Assistant	*Fall 2023*
MTH111 Calculus I, Teaching Assistant	*Spring 2022*

Honors & Awards

3rd Place in Vehicle Trajectory Prediction, 2025 Autonomous Driving AI Challenge *(1,500,000 KRW Prize)*	*Oct. 2025*
Academic Honors	*Spring 2022, Spring 2023, Spring 2024*
Government-Funded Graduate Scholarship *(Full-funded)*	*Sep. 2024 – Aug. 2026*
UNIST Academic Performance Scholarship *(3.5-Year Full-funded)*	*Feb. 2019 – Aug. 2024*

Skills

Languages	Korean – Native, English – Intermediate
Programming Languages	Python, C++, MATLAB
Software & Tools	PyTorch, Linux, CUDA, nuPlan, CARLA, NVIDIA Isaac Gym, ROS, Gazebo, Git, Docker
Reviewer	IEEE IV (2026)