Mingyu Park

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Education

KAIST (Korea Advanced Institute of Science and Technology) *Feb. 2023 – Feb. 2025*
M.S. in the Robotics Program

- **Advisor**: Prof. Donghwan Lee (REDI (Reinforced Decision Intelligence Lab)
- **GPA**: 3.95/4.3
- **Coursework:** Deep Reinforcement Learning, Robot Learning
- **Thesis:** Model-based Reinforcement Learning with Improved Observational Generalization

Kwangwoon University *Mar. 2017 – Feb. 2023*
B.S. in Robotics Engineering

- **GPA**: 4.18/4.5, **Major GPA**: 4.43/4.5
- **Coursework:** Control Engineering, Robot Control, Systemic Design of Robots

Research Experiences

Post-master's Researcher *Daejeon, South Korea*
Digital Convergence Research Laboratory *Sep. 2025 – Sep. 2026*
ETRI (Electronics and Telecommunications Research Institute)

- Researched an algorithmic improvement in deep reinforcement learning for leveraging prior knowledge to improve generalization capability.
- Researched multi-modal bi-manipulation for grasping diverse objects in a real-world.

Undergraduate Research Intern *Seoul, South Korea*
DYROS (Dynamics Robotics Systems Lab), Seoul National University *Advisor: Prof. Jaeheung Park* *Jan. 2022 – Oct. 2022*

- Implemented a navigation system for the mobile manipulator system using SLAM and a Kalman filter
- Researched an efficient methodology to construct a map and navigate through the map on a single robot with multiple sensors
- Researched a whole-body controller using hierarchical quadratic programming for the mobile manipulator system

Undergraduate Research Assistant *Seoul, South Korea*
Advanced Robot Control Lab, KIST (Korea Institute of Science and Technology) *Jun. 2021 – Dec. 2021*
Advisor: Dr. Yisoo Lee

- Implemented an optimal controller for the fixed-based redundant dual-arm manipulators in the real world
- Integrate a previous manipulator system with the ROS framework to interact with an external vision perception system
- Researched a method to reduce the expensive computational cost for real-time control of the optimal controller

Publications (* equal contribution, † corresponding author)

Mingyu Park*, Samyeul Noh*, Hyun Myung†, Donghwan Lee†, *Zero-Shot Visual Generalization in Model-Based Reinforcement Learning via Latent Consistency*, under review at ICLR 2026

Jongchan Park*, **Mingyu Park***, Donghwan Lee†, *Pretraining A Shared Q-Network for Data-Efficient Offline Reinforcement Learning*, NeurIPS 2025

Mingyu Park, Dongwhan Kim, Yonghwan Oh, Yisoo Lee†, *Computational Cost Reduction Method for HQP-based Hierarchical Controller for Articulated Robot*, KROS 2022

Extracurricular Activities

Summer School Participant *Odense, Denmark*
International Elite Summer School in Robotics & Entrepreneurship *Aug. 2023*

- Participated in the summer school to have a better academic knowledge of robotics, regarding advanced techniques for designing robotic systems and entrepreneurship in robotic startup companies in Denmark
- Enlarged an international network with peer students engaging in robotic innovation from diverse countries

Coordinator (2022), Participant (2020-2021) *Seoul, South Korea*
BARAM (Robotics Academic Group in Kwangwoon University) *Mar. 2020 – Dec. 2022*

- Designed and taught an academic seminar regarding robotics, including computer vision and control engineering
- Participated in a semester-long project that crafted a novel robot from scratch and oversaw each project for incoming Kwangwoon students
- Served as a club director for members by organizing an annual exhibition of hand-crafted robots

Projects

Efficient map construction and navigation using multiple sensors on a single robot *2022*

- Justify whether using multiple LiDAR sensors for mobile robots with SLAM would be efficient in localization
- S/W Tool Stacks: C++, Python, ROS

QP-based MPC for Differential-Drive Mobile Robot *2021*

- Adopted a quadratic programming (QP) based local controller for the differential-drive mobile robot navigation
- S/W Tool Stacks: C++, ROS, qpOASES

Awards & Honors

Awards

- **KAIST Support Scholarship**, *Research Grant* *2023 - 2025*
- **Half Tuition Scholarship**, *Academic Excellence Scholarship* *2022*
- **Full & Half Tuition Scholarship**, *Academic Excellence Scholarship* *2021*
- **Quarter Tuition Scholarship**, *Academic Excellence Scholarship* *2020*
- **Kwangwoon Dream**, *Admission Excellence Scholarship* *2017*

Honors

- **Dean's List**, *Academic Excellence Honor* *2021*
- **Dean's List**, *Academic Excellence Honor* *2020*

Technologies

Programming Skills: Python, C, C++, HTML, CSS, JavaScript

Frameworks: Robot Operating System (ROS) 1&2, Matlab, Docker, Tensorflow, PyTorch, Jax

Simulators: MuJoCo, CoppeliaSim, Raisim, IsaacSim, Gazebo

Languages: Korean (Native), English (Advanced), Japanese (Intermediate)