Yohan Park

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INTERESTS

3D Scene Understanding, Vision-Language Planning, Reinforcemnt Learning, Multi-Agent Systems

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) — Daejeon, Republic of Korea
M.S. Student — Mar 2026–
Advanced Machine Intelligence (AMI) Lab, advised by Prof. Tae-Hyun Oh

Korea Advanced Institute of Science and Technology (KAIST) — Daejeon, Republic of Korea
B.S., Double Major in Electrical Engineering & Computer Science — Feb 2019 – Aug 2025

Hansung Science High School — Seoul, Republic of Korea
High School Diploma — Feb 2016 – Feb 2019

PUBLICATIONS

C: conference, J: journal, W: workshop, P: preprint
Equal contribution is denoted by "".*

[P1] **Yohan Park**, H. Ha, W. Jo, T.-H. Oh. "**DarkEQA: Benchmarking Vision-Language Models for Embodied Question Answering in Low-Light Indoor Environments**," Under review.

[C2] J. Kim*, K. Koh*, S.S. Lee, **Yohan Park**, D. Park. "**Reactive Constraint Relaxation for Urban Environment Navigation**," *Conference on Robot Intelligence Technology and Applications (RiTA)*, 2024. [video]

[C1] **Yohan Park**, D. Choi. "**A Study on the Stability of Humanoid Robots with Respect to Foot Structure**," *Korea Robotics Society Annual Conference (KRoC)*, Future Robotic Scientist session, 2017.

RESEARCH EXPERIENCE

KAIST Advanced Machine Intelligence (AMI) Lab — Daejeon, Republic of Korea
Research intern | Advisor: Prof. Tae-Hyun Oh — Apr 2025–Feb 2026

- Built DarkEQA [P1], a controlled benchmark that disentangles low-light exposure loss and sensor noise, enabling evaluation of VLMs on EQA-relevant perceptual primitives
- Developed a depth-based semantic perception module for night-time embodied task execution

KAIST Robust Intelligence & Robotics (RIRO) Lab — Daejeon, Republic of Korea
Research intern | Advisor: Prof. Daehyung Park — Dec 2023–Feb 2025

- Built data preprocessing and multi-dataset training pipelines; fine-tuned a semantic segmentation model for outdoor robot navigation, extending the label space from 4 to 10 classes (2.5×)
- Integrated Behavior Trees with ROS-based navigation planner to enable long-horizon task execution with robust recovery behavior; validated on Boston Dynamics Spot
- Developed an RViz plugin for waypoint navigation in CARLA simulation and real-robot navigation

HONORS AND AWARDS

RiTA 2024 Best Student Paper Award | RiTA — 2024
Awarded to top 1 paper among all submissions to RiTA 2024 [article] — [C2]

Youngpro Global Startup Pitch Competition | Youngpro — 2021
Special Award; served as team leader

KAIST App Service Start-up Competition | KAIST — 2021
Excellence award (6th place out of 20 finalist teams); served as team CEO

KRoC 2017 Best Student Paper Award | Korea Robotics Society — 2017
Awarded to top 1 out of 13 teams in Future Robotic Scientist session [article] — [C1]

SKILLS

Languages: English (Fluent) | iBT TOEFL (MyBest Score): 109/120 (R: 29, L: 29, S: 26, W: 25), Chinese (Intermediate), German (Beginner), Korean (Native)

Programming: Proficient in Python, C, C++, ROS; Familiar with X86-64 & MIPS Assembly, JAVA, Scala

Tools: Git, Docker, Anaconda, CMake, MATLAB, Adobe XD, LaTex

PROJECTS

Knowledge graph-guided autoregressive test generation for diversity-based LLM prompt testing
(CS453 Automated Software Testing) Feb 2025–Jun 2025

- Proposed the project topic and independently designed the system architecture featuring autoregressive behavior for knowledge graph-guided, diversity-based prompt testing for Large Language Models (LLMs); implemented collaboratively with team members

Finite State Machine-based manipulator system for teleoperation and trajectory control
(EE405 Electronics Design Lab) Sep 2024–Dec 2024

- Developed a finite state machine (FSM)-based control system for teleoperation and waypoint trajectory control of a 4-DoF manipulator, hanlding real-time communacation with host machine

Whole-body manipulation of quadrupedal mobile manipulator via imitation learning
(CS477 Introduction to Intelligent Robotics) Feb 2024–Jun 2024

- Enabled 9-DoF mobile manipulator control via imitation learning using a Conditional Variational Autoencoder (CVAE), achieving a 60% average task success rate; extended the Mobile ALOHA framework; implemented collaboratively with team members

STARTUP EXPERIENCE

tPilot Daejeon, Republic of Korea
Project Founder | All-in-one travel guide service Sep 2024–Dec 2024

- Selected to lead a team for the 2024 KAIST Silicon Valley Entrepreneurship Workshop and Mentoring Program, preparing investor relations (IR) pitches for a U.S. audience
- Initiated a large language model (LLM)-powered travel guide service, enhancing user experience across planning, re-planning, and booking stages

Connected Daejeon, Republic of Korea
Co-Founder & CEO | Social media startup for offline relationships 2021–2022

- Led team to the finals of the KAIST App Service Startup Competition, achieving 6th place among 20 finalist teams
- Developed an social networking app emphasizing offline relationships through geometric data analysis

MISCELLANEOUS

Chongqing Liangjiang KAIST International Program Mentor Aug 2020–Jun 2021

- Selected as one of few undergraduate mentors for international exchange students from China, two international students weekly

KAIST FEEL (KAIST EE Conference Camp) Program director Apr 2020–Dec 2021

- Participated in organizing the first KAIST Get-FEEL conference, uniting electrical engineering students from numerous universities

KAIST Electrical Engineering Student Council Executive Branch Mar 2020–Dec 2021

- Served as a student council member in the KAIST Electrical Engineering department, coordinating various departmental events

KAIST ISO (International Student Organization) Club Mar 2019–Dec 2020

- Contributed to enhancing interactions between domestic and international KAIST students