

Taehun Ryu

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Experience

Graduate Research Intern

Jul 2024 – Feb 2025

3D Vision & Robotics Lab, Advisor: Prof. Kyungdon Joo

Education

Ulsan National Institute of Science and Technology (UNIST)

Mar 2025 – Present

M.S. in Artificial Intelligence

GPA: 4.10 / 4.3

Hanyang University ERICA

Mar 2019 – Aug 2024

B.S. in Robotics

GPA: 4.18 / 4.5

Publications

- [1] Taehun Ryu, Changwoo Kang, and Kyungdon Joo. **From Corners to Fiducial Tags: Revisiting Checkerboard Calibration for Event Cameras.** *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2026.
- [2] Jiyun Yang, Geunwoo Kwon, Dahyun Kim, Jeongmok Kim, Taehun Ryu, Seunghak Bae, and Wansoo Kim. **Table Robot System for Complete Restaurant Hall Automation.** *Institute of Control, Robotics and Systems (ICROS)*. 2024.

Selected Research Projects

Stereo Visual SLAM Enhancement

Jul 2024 – Nov 2024

3D Vision & Robotics Lab, UNIST

- Integrated SSC-based ANMS into the ORB keypoint selection stage of ORB-SLAM3 to promote spatially balanced feature selection and improve tracking stability.

Multi-Robot Localization and Tracking

Sep 2023 – Jun 2024

Hanyang University ERICA

- Developed a hybrid localization framework combining robot-internal EKF estimates (IMU, wheel encoder, and LiDAR) with ceiling-camera observations.

Awards

- **Gold Prize** — College of Engineering Capstone Design Competition Dec 2024
- **Third Prize** — National Intelligent Robotics Capstone Design Challenge Nov 2024
- **Undergraduate Student Paper Award** — Institute of Control, Robotics and Systems, for the paper “Table Robot System for Complete Restaurant Hall Automation” Jul 2024

- **Grand Prize** — Robotics Engineering Capstone Design Competition Jun 2024
- **Third Prize** — Digital Innovation Shared University Robotics Competition Jan 2023

Patents

- System and Method for Controlling a Table Robot (Korean Patent Application No. 10-2025-0008102, Patent Pending) Jan 2025

Scholarships

- National Excellence Scholarship in Science and Engineering Fall 2023
- Hanyang ERICA Academic Excellence Scholarship Spring 2024
- SHARE Academic Excellence Scholarship I Spring 2024, Fall 2022
- Special Academic Excellence Scholarship Fall 2023, Fall 2022

Skills

- **Programming:** C/C++, Python
- **Robotics:** ROS2
- **Tools:** Git, Docker
- **Certification:** Computer Specialist in Spreadsheet & Database Level-1