Daeho Kim

💼 Integrated MS-PhD student, Kyung Hee University, Korea Republic of.

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👤 Research Interest

My primary research interest lies in **Embodied AI**. I have been focusing on foundational research to develop autonomous robots and aspire to conduct meaningful research towards a world where humans and robots coexist harmoniously.

🎓 Education

Kyung Hee University   Gyeongi-do Korea
M.S. - Ph.D in Dept of. Software Convergence   Sep. 2023 - Present

Kyung Hee University, Republic of Korea   Gyeongi-do Korea
B.S. in Dept of. Software Convergence   Mar. 2018 - Aug. 2023

- Majored in Robot & Vision Track
- Leave on absence due to military service (Jan. 2019 - Aug. 2020)

📄 Publications

International papers

[1] Camera-LiDAR Extrinsic Calibration using Constrained Optimization with Circle Placement
IEEE Robotics and Automation Letters (RA-L) Vol. 10, Issue:2, pp. 883-890, 2025.
Daeho Kim, Seunghui Shin and Hyoseok Hwang*

[2] PAIR360: A Paired Dataset of High-Resolution 360° Panoramic Images and LiDAR Scans
IEEE Robotics and Automation Letters (RA-L) Vol. 9, Issue:11, pp. 9550-9557, 2024.
Geunu Kim, **Daeho Kim**, Jaeyun Jang, and Hyoseok Hwang*

[3] Moving End-Effectors by Deep Reinforcement Learning for Better Hand-Eye Calibration Performance
under review, 2024
Seunghui Shin, **Daeho Kim**, and Hyoseok Hwang*

Domestic papers

[1] Performance Validation of Target-based Camera-LiDAR Extrinsic Calibration on Simulation
Summer Annual Conference of KIBME (special session), 2024
Daeho Kim, and Hyoseok Hwang*

🏢 Projects

Pick and Place system with 6-DOF Pose Estimation using DOPE ▶

- `Pick and Place / 6-DOF Pose estimateion / Domain Generalization`

Camera-LiDAR Extrinsic Calibration using an Ordinary Box ⭘

- `Extrinsic Calibration / Sequential-RANSAC`

Stereo RGB camera 3D reconstruction ⭘

- `Stereo Calibration / 3D Reconstruction`

Turtlebot Manipulation with Optical Flow in Gazebo Simulation [GitHub]

- Optical Flow / Teleoperation

Academic Experience

Teaching Assistant | Kyung Hee University   Gyeongi-do Korea

- 3D Data Processing (SWCON36600)   Spring Sem. 2024.
- Robot Programming (SWCON33100)   Fall Sem. 2023.

Silicon Valley Software Program | San Jose State University   California USA

- Silicon valley software innovation & Technology contest   Jan. 2021 - Feb. 2021

Skills

- Sensors - LiDAR, 360° camera, Fisheye camera, RGB-D camera, GPS, IMU
- Programming - Python, C/C++
- Simulator - Gazebo, IsaacSim
- Frameworks - ROS, Open3D, OpenCV, PCL, PyTorch

Languages

- Korean - Native

- English - Business Competence