JISANG PARK

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TECHNICAL SKILLS

Languages	Python, C/C++, Java, JavaScript/TypeScript, SQL
AI & Robotics	ROS/ROS2, PyTorch, CUDA, Behavior Tree (BT), MoveIt!, Open3D, TensorRT
Simulators	Isaac Sim, MuJoCo, BiGym, AI2-THOR, Gazebo
Robot Platforms	Mobile Manipulator (Stretch 3), Robotic Arm (UR5e), Quadruped (Spot)
Development Tools	Linux, Git, Docker, AWS (EC2, S3, Lambda), NVIDIA JetPack

TECHNICAL EXPERIENCE

Interactive Perception and Robot Learning (IPRL) Lab Sep 2025 – Present
Stanford University | Advisor: Prof. Jeannette Bohg
Mobile Manipulation in Large Messy Environments

- Implemented a pipeline that integrates imitation learning frameworks into BiGym for policy training
- Designed an extension of the BiGym with an end-effector pose action mode and demonstration retargeting

Robust Intelligence and Robotics Lab Jan 2024 – Jul 2025
Korea Advanced Institute of Science and Technology (KAIST) | Advisor: Prof. Daehyung Park
VLM-Based Reactive Task Planning and Execution

- Achieved 71.2% F1 and near-instant (0.28±0.64 steps) plan-invalidity detection for online replanning by developing EBNF-guided VLM prompting methods and an autoregressive validity-checking algorithm
- Engineered a real-time ROS2 framework for reactive mobile manipulation by parallelizing 3D scene-graph construction and IK-based control through Behavior Tree
- Developed benchmark system for reactive task planning with 100 interruption scenarios in AI2-THOR

Mobile Manipulation–Based Factory Automation

- Eliminated prototyping costs by developing a manipulability analysis module integrating Open3D-based dynamic environment generation with MoveIt! and RViz
- Improved execution robustness by designing an adaptive manipulation framework with force-torque sensor–based collision recovery and 3D pose–based action adaptation via Behavior Tree

Natural-Language-Based Robot Navigation

- Delivered a voice-based robot navigation interface operable by non-technical users by developing a Qt-based RViz plugin integrated with Nvidia Riva ASR engine and ROS navigation stacks
- Demonstrated language-based robot navigation on a Jetson platform by integrating 2D LiDAR mapping with natural-language goal grounding

Human Factors Psychology Lab Jul 2021 – Dec 2021
Seoul National University | Advisor: Prof. Sowon Hahn
Multimodal Human-Robot Interaction

- Improved emotion recognition accuracy by up to 10% through augmentation of the MELD dataset with facial expression data and implementation of a multimodal model with a fusion of bcLSTM and VGG16
- Shaped collection guidelines for OPLEA dataset of 2.3K dialogue based on correlation analysis

EDUCATION

Stanford University Sep. 2025 – Jun. 2027 (Expected)
M.S. in Computer Science | Specialization: Artificial Intelligence

Seoul National University Mar. 2017 – Aug. 2022
B.S. in Computer Science and Engineering | Summa Cum Laude (GPA: 3.9/4.0)