

Seongsu Kim

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Research Interests

My research goal is to develop robots capable of interacting with humans and providing assistance in various tasks. I believe that effectively leveraging prior knowledge and data is essential for addressing diverse, complex and long-horizon tasks. Therefore, my research interests lie in **offline reinforcement learning**, **skill-based reinforcement learning** and **goal-conditioned reinforcement learning**.

Education

Hanyang University

Mar 2023 – Feb 2025

M.S. in Electrical Engineering (Advisor: [Jun Moon](#))

GPA: 4.33 / 4.5

Thesis: "*Model-based learning to achieve goals using offline data*"

Dongyang Mirae University

Mar 2017 – Feb 2023

B.S. in Automation Engineering

GPA: 4.29 / 4.5

Leave of absence for military service: Aug. 2017 - May. 2019

Experience

Research Intern

Dec 2022 - Feb 2023

Control & Optimization Lab (Advisor: [Jun Moon](#))

- Constructed a framework for operating the Husky-Franka robot using Isaac-Sim and ROS

Publications

[C1] **Seongsu Kim** and Jun Moon. "Offline Goal-conditioned Model-based Reinforcement Learning in Pixel-based Environment" *International Conference on ICT Convergence*, 2024

Projects

Development of Autonomous Manipulation and Grasping Based on Visual-Tactile sensing Imitation Learning

Jan 2024 - Dec 2024

Work with [KETI](#)

- Developed a human-hand teleoperation for training a Diffusion Policy using the Allegro hand.

Skills & Classes

Programming Language: Python, C, MATLAB

Tools: JAX/Flax, Pytorch, Tensorflow, MuJoCo, IsaacGym, Isaac-Sim, ROS, Git, AutoCAD, SolidWorks

Robots: Husky, Franka Research 3, Allegro hand, Doosan manipulator

Classes: [Deep Reinforcement Learning](#), Robotics, Artificial Intelligent, Control Engineering, Advanced Machine Learning, Optimization, Random Process, Robot Learning, Robot and Probabilistics, Autonomous Driving

Teaching Experience

Teaching Assistant

Optimization, Numerical Analysis (Instructors: Jun Moon)

Mar 2023 - Jun 2023