

Hojun Chung

Ph.D. Candidate in Robot Learning Laboratory

Seoul National University

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RESEARCH INTEREST

Reinforcement learning, Robotics

EDUCATION

Seoul National University

Ph.D, in Artificial Intelligence

Mar. 2022 - Present

Advisor: Prof. Songhwai Oh

Seoul National University

B.S in Mechanical Engineering

Mar. 2016 – Feb. 2022

Seoul Science High School

Mar. 2013 – Feb. 2016

WORK EXPERIENCES

Sequor Robotics, South Korea

Robotics Engineer

Mar. 2023 ~ Feb. 2024

Developed a digital twin for simulating robot systems, using Unity and ROS2.

Developed an algorithm for an automatic generation of the occupancy map and waypoint graph.

PUBLICATIONS

Hojun Chung, Junseo Lee, Minsoo Kim, Dohyeong Kim, and Songhwai Oh, “Adversarial Environment Design via Regret-Guided Diffusion Models”, Advances in Neural Information Processing Systems (**NeurIPS**), 2024 ([Spotlight](#)).

Dohyeong Kim, Taehyun Cho, Seungyub Han, **Hojun Chung**, Kyungjae Lee, and Songhwai Oh, “Spectral-Risk Safe Reinforcement Learning with Convergence Guarantees”, Advances in Neural Information Processing Systems (**NeurIPS**), 2024

Hojun Chung, Jeongwoo Oh, Jaeseok Heo, Gunmin Lee, and Songhwai Oh, “MAC-ID: Multi-Agent Reinforcement Learning with Local Coordination for Individual Diversity”, IEEE International Conference on Robotics and Automation (**ICRA**), 2024.

Timothy Ha, Jeongwoo Oh, **Hojun Chung**, Gunmin Lee, and Songhwai Oh, “RIANet: Road Graph and Image Attention Network for Urban Autonomous Driving”, IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2022.

Jeongwoo Oh, Gunmin Lee, Jeongeun Park, Wooseok Oh, Jaeseok Heo, **Hojun Chung**, Do Hyung Kim, Byungkyu Park, Chang-Gun Lee, Sungjoon Choi, and Songhwai Oh, “Towards Defensive Autonomous Driving: Collecting and Probing Driving Demonstrations of Mixed Qualities”, IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2022.

DATASETS & OPENSOURCE

BSON:

A benchmark for evaluating navigation methods in diverse social scenarios.

AWARDS & SCHOLARSHIPS

2nd Prize, Creative Independent AI Research Competition, Seoul National University 2024

The National Scholarship for Science and Engineering 2016 ~ 2021

TEACHING

Teaching Assistant, Seoul National University *Spring 2022*

430.457 Introduction to Intelligent Systems (Instructor: Songhwai Oh)

Teaching Assistant, Seoul National University 2022~2023

M2177.004900 Theory and Lab of IoT, AI, and Big Data

Tutor, Seoul National University 2020~2021

034.005 Foundation of Physics

RESEARCH EXPERIENCES

General-Purpose Deep Reinforcement Learning Using Metaverse for Real World Applications - National Research Foundation of Korea (NRF)

Development of Cloud Robot Intelligence Augmentation, Sharing, and Framework Technology to Integrate and Enhance the Intelligence of Multiple Robots - Ministry of Science and ICT (MSIT)

PROGRAMMING SKILLS

Programming language: C++, Python, C#, MATLAB

Software: ROS, PyTorch, Unity, OpenCV

TALKS

Adversarial Environment Design

SNU-LG AI Tech & Talent Conference

June 2024