MINEUI HONG

Ph.D. Student @ Robot Learning Laboratory (RLLAB)

Department of Electrical and Computer Engineering, Seoul National University

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CONTACT INFORMATION

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RESEARCH INTERESTS

Reinforcement Learning, Learning-based Planning, Representation Learning, Robotics

EDUCATION

Ph.D. in Electrical and Computer Engineering   Mar. 2019 - Present
- Seoul National University, Seoul, Republic of Korea
- Advisor: Prof. Songhwai Oh

Overseas Study Program   Fall 2016
- Linköping University, Linköping, Sweden

B.S. in Electrical and Computer Engineering   Mar. 2014 - Feb. 2019
- Seoul National University, Seoul, Republic of Korea

Seoul Science High School for Gifted Students   Mar. 2011 - Feb. 2014
- Seoul, Republic of Korea

PUBLICATIONS

International Journal

- **Mineui Hong**, Kyungjae Lee, Minjae Kang, Wonsuhk Jung, and Songhwai Oh, **"Dynamics-Aware Metric Embedding: Metric Learning in a Latent Space for Visual Planning,"** *IEEE Robotics and Automation Letters (RA-L)*, Apr. 2022.

- Jae In Kim*, **Mineui Hong***, Kyungjae Lee, DongWook Kim, Yong-Lae Park, and Songhwai Oh, **"Learning to Walk a Tripod Mobile Robot Using Nonlinear Soft Vibration Actuators with Entropy Adaptive Reinforcement Learning,"** *IEEE Robotics and Automation Letters (RA-L)*, Apr. 2020.

International Conference

- **Mineui Hong**, Minjae Kang, and Songhwai Oh, **"Diffused Task-Agnostic Milestone Planner,"** in *Proc. of Neural Information Processing Systems (NeurIPS)*, Dec. 2023.

- **Mineui Hong**, Kyungjae Lee, Minjae Kang, Wonsuhk Jung, and Songhwai Oh, **"Dynamics-Aware Metric Embedding: Metric Learning in a Latent Space for Visual Planning,"** in *Proc. of the IEEE International Conference on Robotics and Automation (ICRA)*, May. 2022. (RA-L option)

- **Mineui Hong** and Songhwai Oh, **"Learning Latent Dynamics from Multi-View Observations for Image-Based Control,"** in *Proc. of the International Conference on Control, Automation and Systems (ICCAS)*, Oct. 2021.

- Kyungjae Lee, Sungyub Kim, Sungbin Lim, Sungjoon Choi, **Mineui Hong**, Jae In Kim, Yong-Lae Park, and Songhwai Oh, **"Generalized Tsallis Entropy Reinforcement Learning and Its Application to Soft Mobile Robots,"** in *Proc. of Robotics: Science and Systems (RSS)*, Jul. 2020.

- Jae In Kim*, **Mineui Hong***, Kyungjae Lee, DongWook Kim, Yong-Lae Park, and Songhwai Oh, **"Learning to Walk a Tripod Mobile Robot Using Nonlinear Soft Vibration Actuators with Entropy Adaptive Reinforcement Learning,"** in *Proc. of the IEEE International Conference on Robotics and Automation (ICRA)*, May. 2020.

ArXiv Preprint

- Dohyeong Kim, **Mineui Hong**, Jeongho Park, and Songhwai Oh, **"Conflict-Averse Gradient Aggregation for Constrained Multi-objective Reinforcement Learning,"** arXiv preprint, arXiv:2403.00282 (submitted to NeurIPS 2024), May. 2024

AWARDS AND HONOR

- Brain Korea 21 Plus Scholarship	2020 - Present
- Merit-Based Scholarship	2014 - 2017

TEACHING EXPERIENCE

Teaching Assistant

- Graduation Project	Spring 2022
- Introduction to Intelligent Systems	Fall 2019

Instructor

- Python Programming Tutoring in College of Natural Sciences, Seoul National Unviersity	Fall 2018

RESEARCH EXPERIENCE

Goal-Oriented Artificial Intelligence Agents. - Funded by Ministry of Science and ICT (MSIT)	2022 - Present
Robot Learning: Efficient, Safe, and Socially-Acceptable Machine Learning. - Funded by Ministry of Science and ICT (MSIT)	2019 - Present
Robot Learning from Demonstrations with Mixed Qualities. - Funded by Ministry of Science and ICT (MSIT)	2019 - 2021

PROGRAMMING SKILLS

Language: Python, C/C++, Matlab
Software: Pytorch, TensorFlow, ROS, MuJoCo