Yunho Kim

Email: awesomericky@kaist.ac.kr
Personal website: https://awesomericky.github.io/
GitHub: https://github.com/awesomericky
LinkedIn: https://linkedin.com/in/awesomericky
Citizenship: Republic of Korea

Research interests	Learning-based control, Legged robotics, Machine learning

Education

Korea Advanced Institute of Science and Technology
MS in Mechanical Engineering (Advisor: Jemin Hwangbo) 2022.09 – 2024.02
(GPA: 4.18 / 4.3) (Expected)
Seoul National University
BA in Mechanical Engineering (GPA: 3.75/4.3) 2018.03 – 2022.02

Publications

Not Only Rewards But Also Constraints: Applications on Legged Robot Locomotion (*submitted to IEEE T-RO 2023*)
Yunho Kim, Hyunsik Oh, Jeonghyun Lee, Jinhyeok Choi, Gwanghyeon Ji, Moonkyu Jung, Donghoon Youm, Jemin Hwangbo.

Learning Forward Dynamics Model and Informed Trajectory Sampler for Safe Quadruped Navigation (*RSS 2022*)
Yunho Kim, Chanyoung Kim, Jemin Hwangbo.

Safety Guided Policy Optimization (*IROS 2022*)
Dohyeong Kim, **Yunho Kim**, Kyungjae Lee, Songhwai Oh.

Research experience

RAI LAB (Robotics and Artificial Intelligence Lab)
Position: Student researcher 2021.06 – 2021.09, 2022.01 – 2022.-08
Advisor: Jemin Hwangbo (KAIST)
Conducted research on the safe navigation of quadruped robots in geometrically complex environments using model-based reinforcement learning.

INROL (Interactive and Networked Robotics Lab)
Position: Undergraduate researcher 2021.03 – 2021.06, 2021.09 – 2021.12
Advisor: Dongjun Lee (Seoul National University)
Conducted research on learning multiple gaits of quadruped robots using hierarchical reinforcement learning.

RLLAB (Robot Learning Lab)
Position: Undergraduate researcher 2020.08 – 2021.03
Advisor: Songhwai Oh (Seoul National University)

Conducted research on language-based human-robot interaction with the task of Multi-object Detection and Vision Language Navigation.

CORE Lab (Control, Optimization Research Lab)

Position: Undergraduate researcher   2020.04 – 2020.07
Advisor: Insoon Yang (Seoul National University)
Implemented path tracking and planning algorithms for autonomous RC car navigation using PID control and IT-MPC (Information-Theoretic Model Predictive Control).

Industry experience   **SAMSUNG C-LAB**

Position: Intern   2020.01 – 2020.02
Developed Android application prototype for sensing data and informing users via Bluetooth communication.

Teaching experience   **Teaching assistant (Seoul National University)**
Course: Core of Computing - Python (Advisor: Jehee Lee)   Spring 2021

Skills   **Programming**
Python, C++

CAD modeling
SOLIDWORKS, SketchUp

Languages
Korean (fluent), English (advanced)

Other experience   **Overseas volunteer work**   2018.05 – 2019.08
Participated in overseas volunteer work in Vietnam Binh Dinh three times, thanks to SNUSR volunteer program. We had built a rainwater purification system for the citizens and students.

VESS club activity   2018.09 – 2020.02
Participated in VESS (Volunteering Engineers and Scientists in SNU) club activity. We studied Appropriate Technology (AT) and did lots of projects to solve social problems in our life.

President of 4th VESS club   2019.03 – 2020.02
Worked as a president of 4th VESS club. Planned and ran club activity for one year with other executives.