Hyungkyu Kang

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RESEARCH INTEREST

Artificial Intelligence, Reinforcement Learning, Robotics

EDUCATION

Seoul National University

Mar 2019 - Aug 2025* [*Expected, military service included (2021-2022)]

Seoul Republic of l

B.S. in Mechanical Engineering and Computer Science ∘ Overall GPA: 4.24/4.3 | Major GPA: 4.27/4.3

Seoul, Republic of Korea

Sejong Science High School

Mar 2017 - Feb 2019

High school for talented students in Science and Mathematics

Seoul, Republic of Korea

One-year early graduation

PUBLICATIONS

[1] **Hyungkyu Kang** and Min-hwan Oh. Adversarial Policy Optimization for Preference-based Reinforcement Learning. In The Thirteenth International Conference on Learning Representations, 2025.

EXPERIENCE

• Decision Making Lab [

Mar 2023 - Present

Research Intern

Seoul, Republic of Korea

- Developed a neural dynamic pricing algorithm with regret bound
- Studied provably efficient policy optimization methods with linear and general function approximation
- Developed a preference-based reinforcement learning algorithm with a provable guarantee and efficient neural network implementation
- Republic of Korea Air Force (military service)

Feb 2021 - Nov 2022

Administrative Specialist

Seoul, Republic of Korea

 \circ Administrative work based on the military personnel management system

TEACHING

• Computing Essence: Data-centric Artificial Intelligence

Mar 2025 - *Present* Seoul, Republic of Korea

• Principles and Applications of Data Science

Mar 2024 - Jun 2024

Teaching Assistant

Seoul, Republic of Korea

SKILLS

• Programming: Python (Pytorch, JAX/FLAX), C/C++

Seoul National University Department of Mechanical Engineering

- Mathematics: Basic Engineering Math, Analysis, Probability Theory, Statistical Learning Theory
- Languages: Korean, English

HONORS AND AWARDS

• Yoonsong Choi Changseok Scholarship

Mar 2020 - Sep 2024

Yoonsong Choi Changseok Foundation

• Department of Mechanical Engineering Scholarship for Academic Excellence

Sep 2019

• Hanseong Nobel Prodigy Scholarship

Hanseong Sonjaehan Scholarship Foundation

Mar 2018