

Subi Lee

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Education

Gwangju Institute of Science and Technology (GIST) Mar 2021 - Present
School of Electrical Engineering and Computer Science
GPA: 3.86/4.5

University of California, Berkeley Jun 2022 - Aug 2022
Exchange Student Jan 2026 - May 2026

Research Interest

Reinforcement Learning, Robotics Learning, Autonomous Agent
My research interests focus on making robot learning more efficient and generalizable through reinforcement learning. Since most VLA models rely heavily on imitation learning, I aim to explore how reinforcement learning can be incorporated to help these models handle out-of-distribution (OOD) situations more robustly and acquire more generalizable skills.

Work Experience

RLLAB (Yonsei AI) | Prof. Youngwoon Lee | Undergraduate Intern Sep 2025 - Present
AILAB (GIST AI) | Prof. Kyoobin Lee | Undergraduate Intern Mar 2025 - Aug 2025
Wrtn Technologies | Community Manager Jul 2023 - Feb 2024

Research

[1] G Cho*, J Lee*, J Im, **S Lee**, J Lee, S Kim (Under Review) **AMPED: Adaptive Multi-objective Projection for Exploration and Diversification**. in **NeurIPS 2025**

- Contributed on baseline experiment and surveyed related work.
- we propose a new method, Adaptive Multi-objective Projection for balancing Exploration and skill Diversification (AMPED), which explicitly addresses both exploration and skill diversification. We begin by conducting extensive ablation studies to identify and define a set of objectives that effectively capture the aspects of exploration and skill diversity, respectively.
- During the skill pretraining phase, AMPED introduces a gradient surgery technique to balance the objectives of exploration and skill diversity, mitigating conflicts and reducing reliance on heuristic tuning. In the subsequent fine-tuning phase, AMPED incorporates a skill selector module that dynamically selects suitable skills for downstream tasks, based on task-specific performance signals.

[2] G Cho*, **S Lee***, J Lee. **Evaluating Simplicial Normalization in Multi-task Reinforcement Learning**. **2024 Korea Software Conference**

- Contributed toy environment experiment and surveyed the preliminaries.
- While multitask learning provides improved generalization and sample efficiency compared to single-task learning, it often suffers from lower performance, which is a critical limitation. To address this issue, we replaced the ReLU activation function with the SimNorm activation function which has demonstrated effectiveness in single-task reinforcement learning.
- Our findings show that SimNorm appears to underperform compared to ReLU in the MTRL environments.

Scholarships

National Science and Technology Scholarship — KOSAF	Mar 2021 – Feb 2025
Korea-U.S. Student Exchange Program Scholarship — Korea Ministry of Trade, Industry and Resources	Jan 2026 - May 2026

Skills

CourseWorks	Algorithm, Discrete Mathematics, Computer Architecture, Digital Design
-	Computer system, MLDL, System Programming, Reinforcement Learning, Random Process
Software Engineering	Python, C++, Git-based workflow, Shell
Machine Learning	Pytorch, JAX
Data Analysis	Numpy, Scipy, matplotlib, Jupyter
English	ETS TOEFL 108
Note	LATEX, Notion