

# Donghu Kim

✉ quagmire@kaist.ac.kr | 🏠 i-am-proto.github.io | 📁 I-AM-PROTO

## Research Interest

### Efficient Reinforcement Learning

- Making RL work with as little samples and/or compute as possible.
- Related: Simba, SimbaV2, AtariPB

### Plasticity

- Maintaining plasticity (the ability to train) when the data distribution is constantly shifting/expanding.
- Related: Hare&Tortoise, Discussion slides

## Education

### KAIST

M.S. Student in AI (GPA: 3.8/4.3)

- Advised by Jaegul Choo

Seongnam, Korea

Mar. 2024 - Present

### Korea University

B.S. in Computer Science (Major GPA: 4.5/4.5, Cumulative GPA: 4.2/4.5)

Seoul, Korea

Mar. 2018 - Feb. 2024

## Publications & Preprints

### SimbaV2: Hyperspherical Normalization for Scalable Deep Reinforcement Learning

Preprint

Hoon Lee\*, Youngdo Lee\*, Takuma Seno, Donghu Kim, Peter Stone, Jaegul Choo

- [arXiv](#) / [project page](#) / [code](#)

### SimBa: Simplicity Bias for Scaling Up Parameters in Deep Reinforcement Learning

ICLR'25

Spotlight

Hoon Lee\*, Dongyoon Hwang\*, Donghu Kim, ... , Jaegul Choo, Peter Stone, Takuma Seno

- [arXiv](#) / [project page](#) / [code](#)

### Do's and Don'ts: Learning Desirable Skills with Instruction Videos

NeurIPS'24

Poster

Hyunseung Kim, Byungkun Lee, Hoon Lee, Dongyoon Hwang, Donghu Kim, Jaegul Choo

- [arXiv](#) / [project page](#)

### ATARI-PB: Investigating Pre-Training Objectives for Generalization in Pixel-Based RL

ICML'24

Poster

Donghu Kim\*, Hoon Lee\*, Kyungmin Lee\*, Dongyoon Hwang, Jaegul Choo

- [arXiv](#) / [project page](#) / [code](#)

### Slow and Steady Wins the Race: Maintaining Plasticity with Hare and Tortoise Networks

ICML'24

Poster

Hoon Lee, Hyeonseo Cho, Hyunseung Kim, Donghu Kim, Dugki Min, Jaegul Choo, Clare Lyle

- [arXiv](#) / [code](#)

## Honors & Awards

### Korea University

Academic Excellence Award

2019, 2022

### NCsoft AI Fellowship

Starcraft AI Competition Silver Prize (\$2000)

2019

### Korea Student Aid Foundation

Presidential Science Scholarship (Total \$40000)

2018