

JAEKYEOM KIM

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RESEARCH INTERESTS

- Better robustness and adaptability to new data or tasks, largely in deep reinforcement learning (RL)
- Representation learning and information-theoretic approaches in deep RL

EDUCATION

Seoul National University

Mar. 2018 - Present

Integrated MS/PhD in Computer Science and Engineering (Expected graduation: 2023)

Vision & Learning Lab (Advisor: Prof. Gunhee Kim and Prof. Hyun Oh Song)

Korea Advanced Institute of Science and Technology

Feb. 2010 - Jun. 2017

Bachelor of Science in Computer Science

GPA (Overall): 4.06/4.30

Graduated *summa cum laude*

GPA (Major): 4.21/4.30

PUBLICATIONS

(*equal contribution)

Lipschitz-constrained Unsupervised Skill Discovery

Seohong Park, Jongwook Choi*, **Jaekyeom Kim***, Honglak Lee, Gunhee Kim

· **ICLR 2022**

Time Discretization-Invariant Safe Action Repetition for Policy Gradient Methods

Seohong Park, **Jaekyeom Kim**, Gunhee Kim

· **NeurIPS 2021**

Unsupervised Skill Discovery with Bottleneck Option Learning

Jaekyeom Kim*, Seohong Park*, Gunhee Kim

· **ICML 2021**

Drop-Bottleneck: Learning Discrete Compressed Representation for Noise-Robust Exploration

Jaekyeom Kim, Minjung Kim, Dongyeon Woo, Gunhee Kim

· **ICLR 2021**

Model-Agnostic Boundary-Adversarial Sampling for Test-Time Generalization in Few-Shot Learning

Jaekyeom Kim, Hyungseok Kim, Gunhee Kim

· **ECCV 2020 (Oral: 104/5025 \approx 2%)**

EMI: Exploration with Mutual Information

Hyungseok Kim*, **Jaekyeom Kim***, Yeonwoo Jeong, Sergey Levine, Hyun Oh Song

· **ICML 2019 (Long talk: 158/3424 \approx 4.6%)**

HONORS & AWARDS

- Naver PhD Fellowship** *Dec. 2021*
Naver
- Google PhD Fellowship** *Sep. 2021*
Google
- Area: Machine Learning
- Samsung Humantech Paper Award** *Feb. 2021*
Samsung Electronics
- Silver Prize in Signal Processing, award for research work
- Qualcomm Innovation Fellowship Korea** *Dec. 2020*
Qualcomm AI Research
- Award for research work
- Kwanjeong Domestic Scholarship** *Apr. 2018 - Mar. 2020*
Kwanjeong Educational Foundation
- Full-tuition and additional scholarships for 2 years
- Summa Cum Laude Honor** *Feb. 2018*
Korea Advanced Institute of Science and Technology
- National Presidential Science Scholarship** *Feb. 2010 - Jun. 2017*
Korea Student Aid Foundation
- Full-tuition and additional scholarships for undergraduate study
- KAIST Convergence AMP Scholarship** *Oct. 2016*
Korea Advanced Institute of Science and Technology
- Merit-based scholarship awarded to 5 recipients
- Code Sprint 2015** *Jul. 2015*
SK Planet
- **R2 - 3rd Place:** Made predictions on customers' future VOD purchases given their past purchase lists
 - **R1 - Special Award:** Wrote algorithms for Robocode agents
 - Only competitor who won prizes in both of the competitions
- ITCSC-INC 2012 Winter School** *Jan. 2012*
Chinese University of Hong Kong
- One of 2 Korean and 48 other Asian students chosen and invited

ACADEMIC ACTIVITIES

- Conference Reviewer**
- ICML (2021, 2022), NeurIPS (2021), ICLR (2022)

Teaching Assistant at Seoul National University

- Statistical Foundations for A.I. and Machine Learning (M2480.000500), Fall, 2021
- Theory and Lab of IoT, AI, and Big Data (M2177.004900), Spring, 2021
- Probabilistic Graphical Models (M1522.001300), Spring, 2020
- Introduction to Deep Learning (M2177.004300), Spring, 2019
- Engineering Mathematics 2 (033.015), Fall, 2018
- Introduction to Deep Learning (M2177.004300), Spring, 2018

WORK EXPERIENCE

ESTsoft, Seoul (Alternative Military Service)

Apr. 2013 - May 2016

Senior Software Engineer

- Developed the dual-engine web browser based on Chromium, a large-scale open source project that powers Google Chrome and more

Google, Seoul

Jun. 2012 - Sep. 2012

Software Engineering Intern

- Worked on processing raw text data to generate formalized entries and reconciling them with existing entries, as part of the Knowledge Graph project