

JAEKYEOM KIM

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RESEARCH INTERESTS

Deep reinforcement learning: improving the transferability and generalization of learned behaviors to new tasks or data and abstraction of behaviors at scale.

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)

Constrained GPI for Zero-Shot Transfer in Reinforcement Learning

Jaekyeom Kim, Seohong Park, Gunhee Kim

· **NeurIPS 2022**

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

- | | |
|---|------------------------------|
| Youlchon AI Star Fellowship
<i>Youlchon Foundation</i> | <i>Jul. 2022</i> |
| Naver PhD Fellowship
<i>Naver</i> | <i>Dec. 2021</i> |
| Google PhD Fellowship
<i>Google</i> | <i>Sep. 2021</i> |
| · Area: Machine Learning | |
| Samsung Humantech Paper Award
<i>Samsung Electronics</i> | <i>Feb. 2021</i> |
| · Silver Prize in Signal Processing, award for research work | |
| Qualcomm Innovation Fellowship Korea
<i>Qualcomm AI Research</i> | <i>Dec. 2020</i> |
| · Award for research work | |
| On-Dream Outstanding Scholar Award
<i>Hyundai Motor Chung Mong-Koo Foundation</i> | <i>Dec. 2020</i> |
| On-Dream Future Talent Graduate Scholarship
<i>Hyundai Motor Chung Mong-Koo Foundation</i> | <i>Jul. 2020 - Jul. 2021</i> |
| · Full-tuition and additional scholarships for graduate study | |
| Kwanjeong Domestic Scholarship
<i>Kwanjeong Educational Foundation</i> | <i>Apr. 2018 - Mar. 2020</i> |
| · Full-tuition and additional scholarships for 2 years | |
| Summa Cum Laude Honor
<i>Korea Advanced Institute of Science and Technology</i> | <i>Feb. 2018</i> |
| National Presidential Science Scholarship
<i>Korea Student Aid Foundation</i> | <i>Feb. 2010 - Jun. 2017</i> |
| · Full-tuition and additional scholarships for undergraduate study | |
| KAIST Convergence AMP Scholarship
<i>Korea Advanced Institute of Science and Technology</i> | <i>Oct. 2016</i> |
| · Merit-based scholarship awarded to 5 recipients | |

ACADEMIC ACTIVITIES

- Conference Reviewer**
- ICML (2021, 2022), NeurIPS (2021, 2022), ICLR (2022, 2023)
- Teaching Assistant at Seoul National University**
- Probabilistic Graphical Models (M1522.001300), Spring, 2022

- 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