# JAEKYEOM KIM

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#### RESEARCH INTERESTS

- · Better robustness to new inputs or domains, largely in reinforcement learning (RL)
- · Representation learning in RL
- · Information-theoretic approaches and analyses in RL

#### **EDUCATION**

## Seoul National University

Mar. 2018 - Present

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

Incheon Science High School

Mar. 2008 - Feb. 2010

## **PUBLICATIONS**

Unsupervised Skill Discovery with Bottleneck Option Learning

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

(\*equal contribution)

· 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, Hyoungseok Kim, Gunhee Kim

• ECCV 2020 (Oral:  $104/5025 \approx 2\%$ )

EMI: Exploration with Mutual Information

Hyoungseok Kim\*, Jaekyeom Kim\*, Yeonwoo Jeong, Sergey Levine, Hyun Oh Song

(\*equal contribution)

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

## **HONORS & AWARDS**

## Samsung Humantech Paper Award

Feb. 2021

Samsung Electronics

· Silver Prize in Signal Processing, one-time award for research work

## Qualcomm Innovation Fellowship Korea

Dec. 2020

Qualcomm AI Research

· One-time award for research work

## Kwanjeong Domestic Scholarship

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

Apr. 2018 - Mar. 2020

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), 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