

Soochan Lee

Ph.D. Candidate

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Research Interests

In the pursuit of artificial general intelligence, I believe that one of the next major challenges is continual learning. Specifically, I have been pioneering radically different continual learning approaches that do not rely on gradient descent as the primary learning mechanism. Based on my experience in continual learning, I aim to enable new capabilities in AI models.

Education

Ph.D. Candidate in Computer Science and Engineering

Vision and Learning Lab., Seoul National University

Sep. 2019 – Aug. 2024
(expected)

- Advisor: Gunhee Kim
- Serving as a research specialist to fulfill military duty (Sep. 2021 - Aug. 2024)

M.S. in Computer Science and Engineering

Vision and Learning Lab., Seoul National University

Sep. 2017 – Aug. 2019

- Advisor: Gunhee Kim

B.S. in Computer Science and Engineering

Seoul National University

Mar. 2013 – Aug. 2017

Publications

When Meta-Learning Meets Online and Continual Learning: A Survey

Jaehyeon Son*, Soochan Lee*, and Gunhee Kim

arXiv preprint
2023

Recasting Continual Learning as Sequence Modeling

Soochan Lee, Jaehyeon Son, and Gunhee Kim

NeurIPS
2023

Recursion of Thought: A Divide and Conquer Approach to Multi-Context Reasoning with Language Models

Soochan Lee and Gunhee Kim

Findings of ACL
2023

A Neural Dirichlet Process Mixture Model for Task-Free Continual Learning

Soochan Lee, Junsoo Ha, Dongsu Zhang, and Gunhee Kim

ICLR
2020

Harmonizing Maximum Likelihood with GANs for Multimodal Conditional Generation

Soochan Lee, Junsoo Ha, and Gunhee Kim

ICLR
2019

Improving Occlusion and Hard Negative Handling for Single-Stage Pedestrian Detectors

Junhyug Noh, Soochan Lee, Beomsu Kim, and Gunhee Kim

CVPR
2018

Honors & Awards

Qualcomm Innovation Fellowship Korea	2023
ICLR 2021 Outstanding Reviewer	2021
Qualcomm Innovation Fellowship Korea	2020
NeurIPS 2020 Top 10% Reviewer	2020
Naver Ph.D. Fellowship	2019
Silver Award, 25th Humantech Paper Award Sponsored by Samsung Electronics.	2019

Service

Conference Reviewer

ECCV 2020, NeurIPS 2020, ICLR 2021, ICML 2021, NeurIPS 2021, ICLR 2022,
NeurIPS 2022, ICML 2023, NeurIPS 2023, ICLR 2024

Journal Reviewer

IJCV (2023)

Experiences

Programming

Python, PyTorch

GPU Cluster Management

Linux, Ansible, Slurm

2017 – 2024