JUNHOO LEE

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RESEARCH INTERESTS

My research aims to bridge the gap between **optimization theory** and **modern generative AI**. Instead of merely scaling up models, I investigate the training dynamics of overparameterized networks and design inductive biases (such as geometric constraints or explicit filtering) to ensure robust in-distribution learning. Currently, I am exploring the fundamental principles of **Diffusion Models** and **LLMs** to make them more efficient, explainable, and controllable.

EDUCATION

Seoul National University   Seoul, South Korea
Ph.D. Candidate in Intelligence and Information   Sep 2021 – Present (Exp. Aug 2026)

Seoul National University   Seoul, South Korea
B.Sc. in Electrical and Computer Engineering   Mar 2017 – Sep 2021

PUBLICATIONS

Preprint

- **Unlocking the Potential of Diffusion Language Models through Template Infilling**
  Junhoo Lee, Seungyeon Kim, Nojun Kwak
  Preprint, 2025.

Main Conference

- **Deep Edge Filter** (Co-first)
  Dongkwan Lee[†], Junhoo Lee[†], Nojun Kwak
  NeurIPS 2025, 2025.

- **What's Making That Sound Right Now?**
  Hahyeon Choi, Junhoo Lee, Nojun Kwak
  ICCV 2025, 2025.

- **Deep Support Vectors**
  Junhoo Lee, Hyunho Lee, Kyomin Hwang, Nojun Kwak
  NeurIPS 2024, 2024.

- **Any-Way Meta Learning**
  Junhoo Lee, Yearim Kim, Hyunho Lee, Nojun Kwak
  AAAI 2024, 2024.

- **SHOT: Suppressing the Hessian along the Optimization Trajectory**
  Junhoo Lee, Jayeon Yoo, Nojun Kwak
  NeurIPS 2023, 2023.

Workshop & Journal

- **Do Not Think About Pink Elephant!** (Co-first)
  Kyomin Hwang[†], Suyoung Kim[†], Junhoo Lee[†], Nojun Kwak
  CVPR 2024 Workshop (Responsible Generative AI), 2024.

- **Coreset Selection for Object Detection**
  Hojun Lee, Suyoung Kim, Junhoo Lee, Jaeyoung Yoo, Nojun Kwak
  CVPR 2024 Workshop (Dataset Distillation), 2024.

- **Practical Dataset Distillation Based on Deep Support Vectors**
  Hyunho Lee, Junhoo Lee, Nojun Kwak
  ECCV 2024 Workshop (Dataset Distillation Challenge), 2024.

- **The Role of Teacher Calibration in Knowledge Distillation**
  Suyoung Kim, Seonguk Park, Junhoo Lee, Nojun Kwak
  IEEE Access, 2025.

AWARDS & HONORS

BK21 Future Innovation Talent Bronze Prize	2023
BK21 Outstanding Research Talent Fellowship	2023
Yulchon AI Star Scholarship	2022
3rd Place, SNU FastMRI Challenge	2021
Kwanak Scholarship	2021
National Science and Engineering Scholarship	2017

ACADEMIC SERVICE

Conference Reviewer: CVPR (2025, 2026), ICLR (2025, 2026), NeurIPS (2024, 2025), ICCV (2025)