Donghyun Lee

CONTACT INFORMATION	Building 944, NPRC Center Gwanak-ro 1, Gwanak-gu Seoul 08826, Republic of Korea	**Phone:** (+82) 010-5787-4336 **E-mail:** eudh1206@snu.ac.kr **Github:** https://github.com/99DHL

EDUCATION

Seoul National University — Mar. 2022 - Present
M.S./Ph.D. *Student in Computer Science and Engineering* — Seoul, Korea

- Advisor: Professor Jae W. Lee

Yonsei University — Mar. 2018 - Feb. 2022
Bachelor of Science *in Electrical and Electronic Engineering* — Seoul, Korea

- *Awarded Highest Honors at Graduation* (GPA: 4.14 / 4.30)

RESEARCH INTERESTS

System for ML, HW/SW optimization for emerging AI applications, GPU kernel optimization

PUBLICATIONS

FastPoint: Accelerating 3D Point Cloud Model Inference via Sample Point Distance Prediction
Donghyun Lee, Dawoon Jeong, Jae W. Lee, and Hongil Yoon
IEEE/CVF International Conference on Computer Vision (**ICCV**), Honolulu, Hawaii, October 2025

FACIL: Flexible DRAM Address Mapping for SoC-PIM Cooperative On-device LLM Inference
Seong Hoon Seo, Junghoon Kim, **Donghyun Lee**, Seonah Yoo, Seokwon Moon, Yeonhong Park, and Jae W. Lee
The 31st IEEE International Symposium on High Performance Computer Architecture (**HPCA**), Las Vegas, NV, March 2025.

Frugal 3D Point Cloud Model Training via Progressive Near Point Filtering and Fused Aggregation
Donghyun Lee, Yejin Lee, Jae W. Lee, and Hongil Yoon
European Conference on Computer Vision (**ECCV**), Milan, Italy, September 2024.

Liquid: Mix-and-Match Multiple Image Formats to Balance DNN Training Pipeline
Woohyeon Baek*, Jonghyun Bae*, **Donghyun Lee**, Hyunwoong Bae, Yeonhong Park, and Jae W. Lee
14th ACM SIGOPS Asia-Pacific Workshop on Systems (**APSys**), Seoul, South Korea, August 2023.

Not All Neighbors Matter: Point Distribution-Aware Pruning for 3D Point Cloud
Yejin Lee, **Donghyun Lee**, JungUk Hong, Jae W. Lee, and Hongil Yoon
37th AAAI Conference on Artificial Intelligence (**AAAI**), Washington, DC, February 2023.

TEACHING EXPERIENCE	***Computer Architecture (Instructor: Prof. Jae W. Lee)*** *Seoul National University, Sep. - Dec. 2023 Teaching Assistant* • Undergraduate course taught in English
COMMUNITY SERVICE	***Student Volunteer***, *International Symposium on Code Generation and Optimization 2022*
INTERNSHIPS	***Undergraduate Student Intern*** Jul. - Aug. 2021 *Architecture and Code Optimization Lab (ARC Lab)* Seoul, Korea • Implement block-sparse GEMM CUDA kernel for sparse DNN training ***Undergraduate Student Intern*** Apr. 2020 - Jun. 2021 *Compiler Research Laboratory (Corelab)* Seoul, Korea • Contributed to FlexC graph compiler project
HONORS AND AWARDS	***The 31st Samsung Humantech Paper Award: Encouragement Prize***, Samsung Electronics Co., Ltd. ***2024 Accelerator Programming Winter School***, *CUDA competition*, 1st place, SNU THUNDER Research Group & Manycoresoft ***Highest Honors at Graduation (Top 1% of class)***, Yonsei University
COMPUTER SKILLS	***Launguages:*** C/C++, CUDA, Verilog, Python ***Applications/Frameworks:*** Pytorch, Tensorflow, MLX