

Donghyun Lee

CONTACT INFORMATION	Building 944, NPRC Center	Phone: (+82) 010-5787-4336
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EDUCATION	Seoul National University <i>M.S./Ph.D. Student in Computer Science and Engineering</i> <ul style="list-style-type: none">Advisor: Professor Jae W. Lee	Mar. 2022 - Present Seoul, Korea
	Yonsei University <i>Bachelor of Science in Electrical and Electronic Engineering</i> <ul style="list-style-type: none">Awarded Highest Honors at Graduation (GPA: 4.14 / 4.30)	Mar. 2018 - Feb. 2022 Seoul, Korea
RESEARCH INTERESTS	System for ML, HW/SW optimization for emerging AI applications, GPU kernel optimization	
PUBLICATIONS	GS-Scale: Unlocking Large-Scale 3D Gaussian Splatting Training via Host Offloading Donghyun Lee, Dawoon Jeong, Jae W. Lee, and Hongil Yoon The 31st ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), 2026 (Under review)	
	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**

Laanguages: C/C++, CUDA, Verilog, Python

Applications/Frameworks: Pytorch, Tensorflow, MLX