

# Donghyun Lee

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<b>CONTACT INFORMATION</b>	Building 944, NRPC Center Gwanak-ro 1, Gwanak-gu Seoul 08826, Republic of Korea	<b>Phone:</b> (+82) 010-5787-4336 <b>E-mail:</b> eudh1206@snu.ac.kr <b>Github:</b> <a href="https://github.com/99DHL">https://github.com/99DHL</a>
<b>EDUCATION</b>	<b>Seoul National University</b> <i>M.S./Ph.D. Student in Computer Science and Engineering</i> • Advisor: Professor Jae W. Lee	Mar. 2022 - Present Seoul, Korea
<b>Yonsei University</b> <i>Bachelor of Science in Electrical and Electronic Engineering</i>		Mar. 2018 - Feb. 2022 Seoul, Korea
• Awarded Highest Honors at Graduation (GPA: 4.14 / 4.30)		
<b>RESEARCH INTERESTS</b>	Efficient 3D Vision, Systems for Machine Learning, SW/HW Co-Design, GPU kernel optimization	
<b>PUBLICATIONS</b>	<p><b>GS-Scale: Unlocking Large-Scale 3D Gaussian Splatting Training via Host Offloading</b> <b>Donghyun Lee</b>, Dawoon Jeong, Jae W. Lee, and Hongil Yoon The 31st ACM International Conference on Architectural Support for Programming Languages and Operating Systems (<b>ASPLOS</b>), Pittsburgh, PA, 2026</p> <p><b>FastPoint: Accelerating 3D Point Cloud Model Inference via Sample Point Distance Prediction</b> <b>Donghyun Lee</b>, Dawoon Jeong, Jae W. Lee, and Hongil Yoon IEEE/CVF International Conference on Computer Vision (<b>ICCV</b>), Honolulu, Hawaii, October 2025</p> <p><b>FACIL: Flexible DRAM Address Mapping for SoC-PIM Cooperative On-device LLM Inference</b> Seong Hoon Seo, Junghoon Kim, <b>Donghyun Lee</b>, Seonah Yoo, Seokwon Moon, Yeonhong Park, and Jae W. Lee The 31st IEEE International Symposium on High Performance Computer Architecture (<b>HPCA</b>), Las Vegas, NV, March 2025.</p> <p><b>Frugal 3D Point Cloud Model Training via Progressive Near Point Filtering and Fused Aggregation</b> <b>Donghyun Lee</b>, Yejin Lee, Jae W. Lee, and Hongil Yoon European Conference on Computer Vision (<b>ECCV</b>), Milan, Italy, September 2024.</p> <p><b>Liquid: Mix-and-Match Multiple Image Formats to Balance DNN Training Pipeline</b> Woohyeon Baek*, Jonghyun Bae*, <b>Donghyun Lee</b>, Hyunwoong Bae, Yeonhong Park, and Jae W. Lee 14th ACM SIGOPS Asia-Pacific Workshop on Systems (<b>APSys</b>), Seoul, South Korea, August 2023.</p>	

**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

- Implemented 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, 1<sup>st</sup> 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