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Research Interest: MEMORY SYSTEMS & ARCHITECTURES

Computer System, Memory Architecture, Processing-In-Memory, Near Memory Processing, Graph Processing, Accelerators, Large Language Models (LLMs)

EDUCATION

- Seoul National University

Ph.D. Student - Electrical & Computer Engineering

Seoul, Korea
March 2024 - Current
- Seoul National University

B.S. - Electrical & Computer Engineering

Seoul, Korea
March 2020 - February 2024

PUBLICATIONS

¹: indicates co-first authors.

- A Cost-Effective Near-Storage Processing Solution for Offline Inference of Long-Context LLMs:

Hongsun Jang, Jaeyong Song, Changmin Shin, Siung Noh, Jaewon Jung, Jisung Park, Jinho Lee

ASPLOS, 2026
- LoCaLUT: Harnessing Capacity-Computation Tradeoffs for LUT-Based Inference in DRAM-PIM:

Junguk Hong, Changmin Shin, Sukjin Kim, Si Ung Noh, Taehee Kwon, Seongyeon Park, Hanjun Kim, Youngsok Kim, Jinho Lee

HPCA, 2026
- FlexiWalker: Extensible GPU Framework for Efficient Dynamic Random Walks with Runtime Adaptation:

Seongyeon Park, Jaeyong Song, Changmin Shin, Sukjin Kim, Junguk Hong, and Jinho Lee

EuroSys, 2026
- FALA: Locality-Aware PIM-Host Cooperation for Graph Processing with Fine-Grained Column Access:

Changmin Shin, Jaeyong Song, Seongmin Na, Jun Sung, Hongsun Jang, and Jinho Lee

MICRO, 2025
- Piccolo: Large-Scale Graph Processing with Fine-Grained In-Memory Scatter-Gather:

Changmin Shin, Jaeyong Song, Hongsun Jang, Dogeun Kim, Jun Sung, Taehee Kwon, Jae Hyung Ju, Frank Liu, Yeonkyu Choi, and Jinho Lee

HPCA, 2025
- A Case for In-Memory Random Scatter-Gather for Fast Graph Processig:

Changmin Shin¹, Taehee Kwon¹, Jaeyong Song, Jae Hyung Ju, Fank Liu, and Jinho Lee

IEEE CAL, 2024
- PSA: Accelerating On-Device Long-Context LLM Inference with PIM-Centric Sparse Attention:

Seongmin Na, Changmin Shin, Jun Sung, Woobeen Jo, Dongha Jung, Minseong Kim, Jinho Lee

undersubmission, 2026
- SePaRate: Segmenting Patterns from Defects in Wafer Manufacturing Using Weak Supervision:

Dain Kwon, Changmin Shin, Sunjong Park, Kanghyun Choi, Hyeyoon Lee, Jaewon Jang, Minseok Choi and Jinho Lee

undersubmission, 2026

HONORS AND AWARDS

- Outstanding Paper Honorable Mention Award @ Samsung DS Division - Dec. 2025
- Student Travel Grant @ MICRO'25 - Oct. 2025
- Student Travel Grant @ HPCA'25 - Mar. 2025
- Outstanding Poster Award @ KIISE Computer System Society Winter Workshop - Feb. 2025

TEACHING EXPERIENCE

- Digital Systems Design and Lab.

Teaching Assistant

Seoul National University
Fall 2025
- Embedded Systems Design.

Teaching Assistant

Seoul National University
Fall 2024