Hongsun Jang

Accelerated Intelligent Systems Lab (AISys)

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Github: github.com/hongsunjang

**EDUCATION** 

Seoul National University

Integrated M.S./ Ph.D. in Electrical & Computer Engineering; GPA: 3.86/4.3

Seoul, Korea (Republic of)

March 2023 - Present

Yonsei University

B.S. in Computer Science; GPA: 3.69/4.3

Seoul, Korea (Republic of)

Mar 2017 - Aug 2022

Courses: Multi-core and GPU Programming, Computer Architecture, Operating System, Advanced algorithms, Machine Learning

RESEARCH INTEREST

Distributed Deep Learning, Near-Storage Processing, FPGA, Large Language Models (LLMs)

#### **PUBLICATIONS**

"PeerAiD: Improving Adversarial Distillation from a Specialized Peer Tutor" [CVPR'24], [accepted]

Jaewon Jung, Hongsun Jang, Jaeyong Song, and Jinho Lee

"Smart-Infinity: Fast Large Language Model Training using Near-Storage Processing on a Real System" [HPCA'24, Best Paper Award-Honorable Mention] [paper]

Hongsun Jang, Jaeyong Song, Jaewon Jung, Jaeyoung Park, Youngsok Kim, and Jinho Lee

"Pipette: Automatic Fine-Grained Large Language Model Training Configurator for Real-World Clusters" [DATE'24], [accepted]

Jinkyu Yim<sup>1</sup>, Jaeyong Song<sup>1</sup>, Yerim Choi, Jaebeen Lee, Jaewon Jung, **Hongsun Jang**, and Jinho Lee\*

"GraNNDis: Efficient Unified Distributed Training Framework for Deep GNNs on Large Clusters" [arXiv'23], [arXiv]

Jaeyong Song, Hongsun Jang, Jaewon Jung, Youngsok Kim, and Jinho Lee

"Fast Adversarial Training with Dynamic Batch-level Attack Control"

[DAC'23], [paper]

Jaewon Jung, Jaeyong Song, Hongsun Jang, Hyeyoon Lee, Kanghyun Choi, Noseong Park, and Jinho Lee,

"Pipe-BD: Pipelined Parallel Blookwise Distillation"

[DATE'23], [paper], [arXiv], [code]

Hongsun Jang, Jaewon Jung, Jaeyong Song, Joonsang Yu, Youngsok Kim, and Jinho Lee

"Optimus-CC: Efficient Large NLP Model Training with 3D Parallelism Aware Communication Compression" [ASPLOS'23], [paper], [arXiv]

Jaeyong Song<sup>1</sup>, Jinkyu Yim<sup>1</sup>, Jaewon Jung, **Hongsun Jang**, Hyung-jin Kim, Youngsok Kim, and Jinho Lee

### Honors and Awards

- The 30th IEEE International Symposium on High-Performance Computer Architecture : March 2024 Best Paper Award-Honorable Mention
- The 30th Samsung Humantech Paper Award: February 2024

Participation Prize, Computer Science and Engineering

- Academic Excellence Award, Seoul National University (2023-1)
- Academic Excellence Award, Yonsei University (2022-2)
- Second Prize at Software Capstone Design, Yonsei University (2022-2, 2022-1)

### EXPERIENCE

Samsung Electronics, Memory Solutions Team

Engineering Internship (manager: Gitae Na)

May 2021 - Jun 2021

Eugene Investment & Futures, Information Technology Team

Field Practice Intern (manager: Manwoo Jang, Eunchang Choi)

Jan 2021 - Feb 2021

### TEACHING EXPERIENCE

# • Digital System Design and Practices (430.315A)

Teaching Assistant, Fall 2023

## • Programming Methodology (430.211)

Teaching Assistant, Spring 2023