Fanjiang Ye

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Education

Indiana University 2023-Present

Ph.D. Student in Intelligent Systems Engineering (Track: Computer Engineering) Bloomington, IN, USA

Advisor: Dr. Dingwen Tao, Dr. Fengguang Song

University of Science and Technology of China 2019-2023

Bachelor of Science in Atomic Physics Hefei, Anhui, China

Advisor: Dr. Changling Zou

Research Experience

Indiana University, HiPDAC Laboratory 2023 - Present

Graduate Research Assistant

Hong Kong University of Science and Technology, JÄCK Laboratory

Bloomington, IN, USA

06/2022 - 10/2022

Hong Kong University of Science and Technology, JÄCK Laboratory
Undergraduate Research Intern

06/2022 - 10/2022
Kowloon, Hong Kong

University of Science and Technology of China, Zou Laboratory

2020 - 2023

University of Science and Technology of China, Zou Laboratory

Undergraduate Research Assistant

2020 - 2023

Hefei, Anhui, China

Research Interests

• Quantum computation

- System optimization for LLM
- Data compression in HPC application

Honors and Awards

• Outstanding Student Scholarship (Top 25%). University of Science and Technology of China 2020-2022

Publication

[Ongoing] Memory Efficient High-performance Quantum Phase Estimation on CPUs and GPUs. Fanjiang Ye, Boyuan Zhang, Chris Kang, Bo Fang, Dingwen Tao

[SC'2024] Accelerating Communication in DLRM Training with Dual-Level Adaptive Lossy Compression. Hao Feng, Boyuan Zhang, Fanjiang Ye, Min Si, Ching-Hsiang Chu, Jiannan Tian, Chunxing yin, Zhaoxia Deng, Yuchen Hao, Pavan Balaji, Tong Geng, and Dingwen Tao. [Paper]

[Preprint] FastCLIP: A Suite of Optimization Techniques to Accelerate CLIP Training with Limited Resources. Xiyuan Wei, Fanjiang Ye, Ori Yonay, Xingyu Chen, Baixi Sun, Dingwen Tao, Tianbao Yang. [Paper]

[Preprint] Overcoming Memory Constraints in Quantum Simulation with a High-Fidelity Compression Framework. Boyuan Zhang, Fanjiang Ye, Yida Gu, Meng Wang, Tallent Nathan, Guangming Tan, Bo Fang, Dingwen Tao. [Paper]

[PPoPP'25 Poster] ViSemZ: High-performance Visual Semantics Compression for AI-Driven Science. Boyuan Zhang, Luanzheng Guo, Jiannan Tian, Jinyang Liu, Daoce Wang, Fanjiang Ye, Chengming Zhang, Jan Strube, Nathan R. Tallent, Guangming Tan, Dingwen Tao. [Paper]