Yanpeng Yu

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Introduction

I am a fourth-year PhD student at the Department of Computer Science, Yale University, under the supervision of Professor Anurag Khandelwal and Professor Lin Zhong. My research focuses on designing high-performance and energy-efficient cache coherence protocols for large-scale and heterogeneous computing systems.

Education

2024–present **Ph.D., Computer Science**, *Yale University*, USA.
2021–2024 **M.Sc., Computer Science**, *Yale University*, USA.
2017–2021 **B.Sc., Computer Science**, *Peking University*, China.

Experiences

2024-2025 **Research Intern**, *Architecture Research Group, NVIDIA Corporation*.

Publications

2023 [in submission]**Yanpeng Yu**, Seung-seob Lee, Anurag Khandelwal, and Lin Zhong. GCS: Generalized cache coherence for efficient and scalable synchronization. *arXiv preprint arXiv:2301.02576*, 2023.

2025 **Yanpeng Yu**, Oswald Nicolai, and Anurag Khandelwal. CORD: Low-latency, bandwidth-efficient and scalable release consistency via directory ordering. In *Proc. IEEE ISCA* ***[Distinguished Artifact Award]***, 2025.

2023 Lei Zou, Fan Zhang, Yinnian Lin, and **Yanpeng yu**. An efficient data structure for dynamic graph on gpus. *IEEE TKDE*, 2023.

2021 Fan Zhang, Lei Zou, and **Yanpeng Yu**. LPMA - an efficient data structure for dynamic graph on gpus. In *Proc. WISE*, 2021.

2021 Seung-seob Lee, **Yanpeng Yu**, Yupeng Tang, Anurag Khandelwal, Lin Zhong, and Abhishek Bhattacharjee. MIND: In-network memory management for disaggregated data centers. In *Proc. ACM SOSP*, 2021.

Projects & Awards

2025 **Distinguished Artifact Award**, IEEE/ACM International Symposium on Computer Architecture (ISCA), 2025.

2019 **GPU-based Triangle Counting Algorithm for Large Scale Graphs**, 2019.
3-rd place in the China Computer Federation Big Data & Computing Intelligence Contest. Supervised by professor Lei Zou at Peking University.

2019 **FPGA-based CNN Accelerator**, 2019.
Supervised by professor Guangyu Sun at Peking University.

Teaching

2023 **Teaching Assistant**, *CPSC 438/538 Big Data Systems: Trends & Challenges*, Yale University.
2022 **Teaching Assistant**, *CPSC 437 Introduction to Database Systems*, Yale University.