

Yixiao Du

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EDUCATION

- **Cornell University** Aug. 2020 - present
MS/Ph.D. in Electrical and Computer Engineering, Advisor: Zhiru Zhang Ithaca, United States
- **Cornell University** Aug. 2019 - Aug. 2020
Master of Engineering in Electrical and Computer Engineering Ithaca, United States
 - GPA: 4.04/4.25
 - Transferred to MS/Ph.D. program in Aug. 2020
- **University of Electronics Science and Technology of China** Sep. 2015 - Jun. 2019
Bachelor of Engineering in Microelectronics Science and Engineering Chengdu, China
 - GPA: 3.91/4.00

WORK EXPERIENCE

- **MangoBoost, Inc.**  May 2023 - Dec. 2023
Research Intern, Mentor: Eriko Nurvitadhi Bellevue, WA
 - Built testing hardware in Verilog to characterize the high-bandwidth memory (HBM) system on AMD Alveo U55C FPGA.
 - Explored functional simulation of HLS designs interfacing with NVMe.

PUBLICATIONS

- [1] Jiajie Li, Jan-Niklas Schmelzle, **Yixiao Du**, Simon Heumos, Andrea Guarracino, Giulia Guidi, Pjotr Prins, Erik Garrison, Zhiru Zhang. **Rapid GPU-Based Pangenome Graph Layout**. *International Conference for High Performance Computing, Networking, Storage, and Analysis (SC)*, Nov. 2024.
- [2] Hongzheng Chen, Jiahao Zhang, **Yixiao Du**, Shaojie Xiang, Zichao Yue, Niansong Zhang, Yaohui Cai, Zhiru Zhang. **Understanding the Potential of FPGA-Based Spatial Acceleration for Large Language Model Inference**. *ACM Transactions on Reconfigurable Technology and Systems (TRETs)*, Mar. 2024.
- [3] **Yixiao Du**, Yuwei Hu, Zhongchun Zhou, Zhiru Zhang. **High-Performance Sparse Linear Algebra on HBM-Equipped FPGAs Using HLS: A Case Study on SpMV**. *International Symposium on Field-Programmable Gate Arrays (FPGA)*, Feb. 2022.
- [4] Yuwei Hu, **Yixiao Du**, Ecenur Ustun, Zhiru Zhang. **GraphLily: Accelerating Graph Linear Algebra on HBM-Equipped FPGAs**. *International Conference on Computer-Aided Design (ICCAD)*, Nov. 2021.

HONORS AND AWARDS

- **ECE Outstanding Ph.D. Teaching Assistant Award** Apr. 2023
School of Electrical and Computer Engineering, Cornell University
 - Only one winner per year with 3000\$ cash award.

SERVICES

- **Reviewer:** ACM TRETs
- **Artifact Evaluator:** FPGA 2023

SKILLS

- **Programming Languages:** C/C++, Python
- **Hardware Description Languages:** Verilog, System Verilog
- **CAD Tools:** Vivado, Vitis HLS, Catapult HLS, Cadence Virtuoso