

Yiqi Liu

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in [Yiqi Liu](#)

🌐 <https://yiqiliu2.github.io/>

Research Interest

Machine Learning Accelerator, Machine Learning Compiler, AI Infrastructure, Computer Architecture/System

Education

- 2022-Now **University of Illinois Urbana-Champaign.**
Ph.D. in Electrical and Computer Engineering, advised by Prof. Jian Huang.
- 2019-2022 **University of Illinois Urbana-Champaign.**
Bachelor of Science in Computer Engineering, with Highest Honors.

Publications

Scaling Deep Learning Computation over the Inter-Core Connected Intelligence Processor with T10

Yiqi Liu, Yuqi Xue, Yu Cheng, Lingxiao Ma, Ziming Miao, Jilong Xue, Jian Huang
Proceedings of the 30th ACM Symposium on Operating Systems Principles (SOSP'24)

Hardware-Assisted Virtualization of Neural Processing Units for Cloud Platforms

Yuqi Xue, Yiqi Liu, Lifeng Nai, Jian Huang
Proceedings of the 57th IEEE/ACM International Symposium on Microarchitecture (MICRO'24)
Best Paper Runner Up (3 out of 497 submissions)

G10: Enabling An Efficient Unified GPU Memory and Storage Architecture with Smart Tensor Migrations

Haoyang Zhang*, Eric Zhou*, Yuqi Xue, Yiqi Liu, Jian Huang
Proceedings of the 56th IEEE/ACM International Symposium on Microarchitecture (MICRO'23)
*co-primary authors

System Virtualization for Neural Processing Units

Yuqi Xue, Yiqi Liu, Jian Huang
Proceedings of the 19th Workshop on Hot Topics in Operating Systems (HotOS'23)

V10: Hardware-Assisted NPU Multi-tenancy for Improved Resource Utilization and Fairness

Yuqi Xue, Yiqi Liu, Lifeng Nai, Jian Huang
Proceedings of the 50th International Symposium on Computer Architecture (ISCA'23)

Work Experience

- 2022-Now **Systems Platform Research Group @ UIUC**
Graduate Research Assistant
- Summer 2022 **Microsoft Research**
Internship, mentored by Dr. Jilong Xue

Teaching

- Fall 2023 **ECE 411: Computer Organization and Design @ UIUC**
Graduate Teaching Assistant
- Spring 2022 **ECE 411: Computer Organization and Design @ UIUC**
Undergraduate Teaching Assistant