

Yuxuan Zhu

First-year Ph.D. student at UIUC CS.
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RESEARCH INTERESTS

Approximate query processing and its application to unstructured data. Machine learning systems.

EDUCATION

University of Illinois Urbana-Champaign 2023 — present
Ph.D. in computer science
Advisor: Daniel Kang

University of Michigan 2021 — 2023
Bachelor of Science and Engineering, Computer Science

Shanghai Jiao Tong University 2019 — 2023
Bachelor of Science, Electrical and Computer Engineering

RESEARCH EXPERIENCE

University of Illinois Urbana-Champaign 2023 — present
Advised by Prof. Daniel Kang.

- Approximate query processing with joins over unstructured data.

Symbiotic Lab, University of Michigan 2022-2023
Advised by Fan Lai and Prof. Mosharaf Chowdhury.

- Built **FedTrans**, a personalized on-device ML training system.

Michigan Intelligent Programming Lab, University of Michigan 2021-2023
Advised by Prof. Xinyu Wang.

- Developed **SlabCity**, a whole-query optimization system leveraging program synthesis.

PUBLICATIONS

- **Yuxuan Zhu**, Jiachen Liu, Fan Lai, Mosharaf Chowdhury. "FedTrans: Efficient Federated Learning via Multi-Model Transformation" *To appear in MLSys* (2024)
- Rui Dong, Jie Liu, **Yuxuan Zhu**, Cong Yan, Barzan Mozafari, Xinyu Wang. "SlabCity: Whole-Query Optimization using Program Synthesis" *PVLDB* (2023)
- Shijing Yuan, Jie Li, **Yuxuan Zhu**, Chentao Wu, Yue Ding. "An Energy-efficient Computing Offloading Framework for Blockchain-enabled Video Streaming Systems" *GlobeCom* (2022)
- Shijing Yuan, Jie Li, Jinghao Liang, **Yuxuan Zhu**, Xiang Yu, Jianping Chen, Chentao Wu. "Sharding for Blockchain based Mobile Edge Computing System: A Deep Reinforcement Learning Approach" *GlobeCom* (2021)

AWARDS

- **Winner** of Microsoft Student Hackathon - Hack for Education (AI&ML). Nov. 2021
- **Final List Award** in The Interdisciplinary Contest in Modeling. May. 2021
- **Nominee for Tang Junyuan Scholarship.** Aug. 2021
- **Grand Prize** in School-enterprise Joint Creative Contest Organized by Media. Nov. 2020
- **Bronze Medal** in University Physics Competition. Dec. 2020
- **Scholarship for Excellent Academic Performance.** Dec. 2020
- **Excellent Young Volunteer** in admission activities of SJTU. Sep. 2020
- **Honorable Mention by Judges** in COVID-19 Challenges Competition. Jul. 2020

OTHER EXPERIENCES

- Grader of MATH 417 Matrix Algebra 2022
- Winter program in St. Petersburg Polytechnic University 2020