

William Xinze Zheng

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Education

University of Illinois Urbana-Champaign <i>BS in Computer Science & Statistics, minor in Mathematics</i>	Sep 2022 – Dec 2025 GPA: 3.99/4.0
University of Melbourne <i>BS in Computer Science</i>	Mar 2021 – May 2022 GPA: 93.2/100

Publications

- [1] Jiawei Tyler Gu, Zhen Tang, Yiming Su, Bogdan Alexandru Stoica, Xudong Sun, **William X. Zheng**, Yue Zhang, Akond Rahman, Chen Wang, Tianyin Xu. “Who Watches the Watchers? On the Reliability of Softwarizing Cloud Application Management.” *To appear in 23rd USENIX Symposium on Networked Systems Design and Implementation (NSDI '26)*, May 2026.
- [2] **William X. Zheng**, Aryan Taneja, Maleeha Masood, Anirudh Sabnis, Ramesh Sitaraman, Deepak Vasisht. “StarCDN: Moving Content Delivery Networks to Space.” *ACM Special Interest Group on Data Communication Conference (SIGCOMM '25)*, September 2025.
- [3] Anna Mazhar, Saad Sher Alam, **William X. Zheng**, Yinfang Chen, Suman Nath, Tianyin Xu. “Fidelity of Cloud Emulators: The Imitation Game of Testing Cloud-based Software.” *IEEE/ACM International Conference on Software Engineering (ICSE '25)*, April 2025.

Research Experience

Research Assistant Mentor: Prof. Francis Y. Yan & Prof. Ravi Netravali <i>Real time communication</i>	UIUC, Champaign, IL Apr 2025 – Present
<ul style="list-style-type: none"> Working on real-time communication protocols like WebRTC and video conferencing infrastructures. Dissecting problems in building real-time human-to-agent communication. 	
Research Assistant Mentor: Prof. Deepak Vasisht & Prof. Ramesh K. Sitaraman <i>Satellite based CDN [2]</i>	UIUC, Champaign, IL May 2024 – May 2025
<ul style="list-style-type: none"> Proposed StarCDN, a novel LEO satellite-based CDN architecture that achieves low latency and high bandwidth usage via consistent hashing and orbit-aware relayed fetch. Developed and open-sourced, in collaboration with Akamai, a CDN synthetic trace generator for geographically diverse traffic with theoretically proven cache-level and object-level properties. 	
Research Intern Mentor: Prof. Tianyin Xu <i>Cloud Management System Interaction [1]</i>	UIUC, Champaign, IL May 2023 - Aug 2024
<ul style="list-style-type: none"> Studied and understood the challenges in K8s operator’s interaction with users, cloud management platform, and managed systems. 	
<i>Cloud and Emulator Discrepancies [3]</i>	
<ul style="list-style-type: none"> Reasoned fundamental challenges in building reliable cloud service emulators via studying real-world cloud-based applications and fuzzing emulator APIs. Built a testing proxy middleware that automatically detects discrepancies between cloud and emulator APIs and selectively runs application tests on cloud and emulator to achieve high-fidelity testing while minimizing the cost of testing. 	

Employment

Research Assistant

Supervisor: Prof. Deepak Vasisht

Champaign, IL
May 2024 – Dec 2025,
Jun 2025 - Aug 2025

Course Assistant

CS340 (Intro. Computer System)

CS438 (Communication Networks)

Champaign, IL
Jan 2023 - May 2024
Jan 2025 - May 2025

Awards and Achievement

Jeffrey P. Blahut Memorial Scholarship (4k USD)

Airwallex Outstanding Undergraduate Student (30k AUD to Top 5 of CS Department)

University of Melbourne Leader in Community Award

University of Melbourne International Student Scholarship