

XIANGQUN ZHANG

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EDUCATION

Ph.D. in Computer & Information Science & Engineering (now ABD), Syracuse University	2020 - Expected 2026
M.S. in Computer Science, New York University	2018 - 2019
B.S. in Mathematics-Computer Science, University of California, San Diego	2014 - 2018
B.A. in German Studies (w/ Distinction), University of California, San Diego	2014 - 2018

OBJECTIVES

I am a current fifth-year Ph.D. Candidate at Syracuse University with industry and research experience in the field of computer systems, storage systems, and computer networks. I hope to apply my research and engineering skills to create more efficient, dependable, and resilient computer systems by addressing the bottleneck of computer storage.

PUBLICATIONS

ASEE '25	Xiangqun Zhang, Ziyang Jiao, Farzana Rahman, and Bryan S. Kim. Filling in the Missing Piece: Integrating Storage into CompOrg Courses , to appear in <i>Proceedings of the 2025 ASEE Annual Conference & Exposition</i> , 2025.
ACM ToS '25	Xiangqun Zhang, Janki Bhimani, Shuyi Pei, Eunji Lee, Sungjin Lee, Yoon Jae Seong, Eui Jin Kim, Changho Choi, Eyee Hyun Nam, Jongmoo Choi, and Bryan S. Kim. Storage Abstractions for SSDs: The Past, Present, and Future , in <i>ACM Trans. Storage</i> , 2025.
FAST '24	Ziyang Jiao, Xiangqun Zhang, Hojin Shin, Jongmoo Choi, and Bryan S. Kim. The Design and Implementation of a Capacity-Variant Storage System , in <i>Proceedings of the 22nd USENIX Conference on File and Storage Technologies</i> , 2024.
HotStorage '23	Xiangqun Zhang, Shuyi Pei, Jongmoo Choi, and Bryan S. Kim. Excessive SSD-Internal Parallelism Considered Harmful , in <i>Proceedings of the 15th ACM Workshop on Hot Topics in Storage and File Systems</i> , 2023.

SKILLS

Research Interests	Storage systems, operating systems, compute express link (CXL), computer architecture, computer networks, computer security, cryptography
Computer Science Skills	C, C++, Linux Kernel Module, Python, PHP, JavaScript, Julia, Java, MATLAB, Haskell, Coq, HTML, \LaTeX , SQL, Database optimization, Docker, Kubernetes
Language Skills	English, German, Chinese (Mandarin)

INDUSTRY EXPERIENCES

PhD Software Engineer Intern, Meta Platforms, Inc., Menlo Park, CA	May 2025 - August 2025
• I will be joining the Creator Insights team at Meta's headquarters in Menlo Park, CA. Stay tuned!	
Intern, Eeum Inc., Campbell, CA	May 2024 - August 2024
• Worked on OpenCIS, one of the first public Compute Express Link (CXL) simulators publicly available.	
• Implemented hardware logic, including CXL.cache, back-invalidation, packet routing, PCIe definitions, etc.	
• Promoted OpenCIS at the Future of Memory and Storage (FMS) and Supercomputing (SC) 2024 as an exhibitor.	

RESEARCH EXPERIENCES

Improving CXL Performance in Complex Environments w/ Eeum, Inc. S4 Lab, Syracuse University	May 2024 - Now
• Contributed a significant portion of the OpenCIS emulator platform. Implemented CXL Type 1/2 devices and improved the functionalities of CXL Type 3 devices. Enhanced the CXL switch module to accommodate different types of CXL devices. Expanded the functionalities for hosts and devices to work with CXL fabric manager.	
Raising Awareness of Storage in Computer Organization Courses S4 Lab, Syracuse University	August 2023 - Now
• Identified storage is an important but usually ignored topic in computer organization courses in the USA, especially when students usually know nothing about storage when they grow up with smartphones. Created a programming assignment to implement SSD internal logic for handling I/O requests. Showed that students were able to learn the topic effectively with the assignment. The results were published in ASEE '25 .	

Tracing the Evolution of SSD Interfaces

October 2023 - October 2024

S4 Lab, Syracuse University

- Traced the evolution of recent SSD storage abstractions and extensions. Surveyed dozens of papers to understand the relationship of different academic work. Reviewed source code of different storage abstractions to show their internal connections. The results were published in [ACM ToS '25](#).

Creating Dynamically Provisioned SSDs w/ Samsung Semiconductors

August 2021 - January 2023

S4 Lab, Syracuse University

- Worked on improving SSD performance under multiple tenants. Implemented prior works as Linux kernel modules using C programming language. Discovered excessive SSD-internal parallelism can impact SSD performance and lifespan. The results were published at [HotStorage '23](#). Patents pending.

TEACHING ASSISTANT EXPERIENCES

CIS 341 Computer Organization & Programming Systems

Fall 2022, Fall 2023

- C, assembly, memory hierarchy, security, CPU pipelining, virtual memory, modern storage technology

CIS 600 Social Media & Data Mining

Spring 2023

- Crawler, Python, social network analysis/modelling, plagiarism detection

ACADEMIC SERVICES

Reviewer

- ACM Technical Symposium on Computer Science Education (SIGCSE TS) 2025
- ACM Virtual Global Computing Education Conference (SIGCSE VIRTUAL) 2024

Artifact Evaluation Program Committee

- USENIX Conference on File and Storage Technologies (FAST) 2026 (Invited)
- USENIX Symposium on Operating Systems Design and Implementation (OSDI) 2024
- USENIX Annual Technical Conference (ATC) 2024