

WILLIAM LIN

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EDUCATION

University of Chicago

Chicago, IL

Computer Science (B.S), Philosophy (B.A.), Computer Science (M.S.) | GPA: 3.8

Sept 2020 - Jun 2025

Relevant Coursework: Operating Systems, Deep Learning Systems, Database Systems, Machine Learning for Computer Systems, Computer Architecture, Theory of Algorithms, Cryptography, Linear Algebra, Human Computer Interaction

PROFESSIONAL EXPERIENCE

Akamai Technologies

Cambridge, MA

Software Engineering Intern

June 2023 - Present

- Spearheaded the development of an application to control log distribution flow and monitor delivery status to enhance existing systems, forecasted to reduce disk usage by up to 40% and lower operational overhead by replacing manual load balancing with automation
- Conducted comprehensive benchmark tests against relational (RDMS) and distributed database systems, evaluating their performance, scalability, and reliability to guide the selection of an optimized database solution
- Devised and implemented a range of sophisticated internal C++ tests utilizing the Google Test framework, and seamlessly integrated them into the log delivery application for enhanced quality assurance
- Collaborated with cross-functional teams to proactively remodel and improve the design of the application, resolve blocking issues, and document processes to facilitate knowledge transfer

Haylon Technologies

Chicago, IL

Software Engineering Intern

Jan 2023 - May 2023

- Designed and built a React web app to create, run, and display various battery simulations through API calls
- Optimized user experience through actively enhancing the user interface with the MUI component library

Major League Hacking

New York, NY (Remote)

Production Engineering Fellow (powered by Meta)

May 2022 - Aug 2022

- Created a personal portfolio website with 500+ lines of code, implementing components such as Python, Flask, Javascript, Jinja, MySQL, Nginx, and unittest
 - Automated testing and deployment workflows using CI/CD through Github Actions to increase efficiency by 80%
 - Set up system and container monitoring, alerting, and visualization using Prometheus and Grafana
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PROJECTS

CrustyDB Database Management System | Rust

- Designed and implemented in-memory pages for efficient data access and modification within the database
- Architected a storage manager with a public interface to efficiently persist pages to disk through heapfiles

Terminal Shell | C

- Developed a terminal shell from scratch with the ability to execute 100% of fundamental built-in bash commands
 - Implemented sophisticated command-line parsing, advanced redirection, and functionality to execute batch files
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TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++, Rust, React JS/Javascript, Java, HTML/CSS, Bash
 - **Frameworks/Tools:** PostgreSQL, Apache Cassandra, MySQL, Docker, Git, Flask, Bootstrap, Jinja, Unity
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LEADERSHIP & ACTIVITIES

EX Crew | Artistic Director, Dance Choreographer

Sept 2021 - Present

- Directed and produced original choreo for a team of 40, winning 3rd place in an on-campus dance competition
- Spearheaded various structural changes within the crew, providing more opportunities for creativity and growth