# WILLIAM LIN

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## **EDUCATION**

University of Chicago

Chicago, IL

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

Sept 2020 - Jun 2025

**Relevant Coursework:** Computer Systems, Theory of Algorithms, Database Systems, Cryptography, Linear Algebra, Human Computer Interaction, Discrete Math, Honors Intro to Comp Sci, Statistical Methods and Applications

# PROFESSIONAL EXPERIENCE

## **Akamai Technologies**

Cambridge, MA

Software Engineering Intern

June 2023 - Present

- Developed an application to control log distribution flow and track 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 benchmark tests against relational (RDMS) and distributed database systems to compare and showcase their performance, scalability, and reliability in order to select the most optimized database solution for the app
- 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 - June 2023

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

### 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

### **PROJECTS**

#### CrustyDB Database Management System | Rust

- Designed and implemented pages in memory to efficiently access and modify data in 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 basic built-in bash commands
- Implemented sophisticated command-line parsing, advanced redirection, and functionality to execute batch files **Battleship** | *C* 
  - Developed a terminal-based replica of battleship, implementing networking to allow real-time two-player gaming

## TECHNICAL SKILLS

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

## **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