

# Zachary Lee Yi-Hong

[Website](#), +1 (716)907-9005, [GitHub](#), [LinkedIn](#), yihongle@buffalo.edu

## SUMMARY

---

Self-motivated and hardworking senior in a BS Computer Science program. Soon to acquire 9 months of SWE internship experience centered around system designer and chief backend developer roles. Passionate to build enterprise level software.

## EDUCATION

---

**University at Buffalo, The State University of New York**

*Expected Graduation May 2023*

Bachelor of Science, Computer Science

**Coursework:** Intro to Microprocessors, Operating Systems, Modern Algorithms, Computer Security, Data Science

**CGPA:** 3.689/4.0

## EXPERIENCE

---

### Software Engineer Intern

*Sep 2022-Present*

*Spawwn*

- Collaborated closely with the CEO to design more than 80% (18+ components) of the Backend architecture, focusing on scalability and maintainability.
- Led development of an automated test tool, using JS testing frameworks and Python scripting, cutting testing time by 50%.
- Supervised integration of approved API endpoints with the frontend team and troubleshooted blockers by developers.
- Implemented more than 50% backend code and facilitated code reviewing.
- Played a key role in bringing the company to Beta testing stages and highly recognized for that impact and effort.

### Open-Source club Contributor

*Aug 2022-Present*

*Make-Open-Source*

- Contributed new features and addressed issues at UB's open-source club's Python based Classic-RPG style game engine.
- Introduced core features such as Potions, and many classes such as Health and Speed.
- Enhanced Python3, OOP, GitHub, and TDD skills.

### Algorithms and Complexity Teaching Assistant

*Aug 2022-Present*

*CSE Department, University at Buffalo*

- Conducted office hours and graded for a Junior level Algorithms and Complexity analysis course. UB's CSE331.
- Assisted students in understanding abstract algorithmic concepts and honed technical communication skills.

## PROJECT EXPERIENCE

---

### Web Hosted Password Manager [Go, NodeJS, MongoDB]

*Dec 2022-Present*

- Designed and implementing a full stack web hosted password manager, focusing on security and ease of maintenance.
- Leveraged industry standard protocols such as AES and RSA to safely communicate traffic.
- Motivation behind project is due to lack of free web hosted password managers, thus implementing it as an open-source project. Wrote out an elaborate TDD for ease of other developers to get involved.

### File System Visualizer [Python3, p5pi, OOP] [Independent Project]

*Nov 2022*

- Implemented an intuitive file system visualizer that presents the system's directories as an interactive graph.
- Utilized traversal algorithms and optimized data structures, along with modularized p5 functionality.
- Focused on OOP practices, ease of maintenance, and scalability.

### Project Fines [NodeJS, MongoDB, Heroku] [Independent Project]

*June 2022-Sep 2022*

- Led a team of 2 in the development of a traffic infringement fine system involving police, users, and administrators.
- Conceived, architected, and built the Backend from scratch, prioritizing a robust database and codebase design.
- Focused on code modularization, readability, and scalability.

### Pintos [C]

*Jan 2022-May 2022*

- Organized a team of 3 to build the Pintos Operating System, achieving full scores on 120+ (all) test cases.
- Facilitated frequent sync-sessions, code reviews, and pair programming sessions.

## TECHNICAL SKILLS

---

**Languages preferred:** Golang, Python, C, Typescript

**Tools/Technologies:** GitHub, Vercel, Linux OS, MongoDB, Elastic Beanstalk, Debuggers, VMs, Jira, ElasticSearch, p5, Docker, NextJS, NodeJS