

Zachary Lee Yi-Hong

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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

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. Also leading the deployment process utilizing AWS and Travis CI.
- 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 was responsible for code reviewing for colleagues before merging to main.
- 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, Docker]

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 and Docker to deploy frontend.
- 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: C, Python, Golang, NodeJS

Tools/Technologies: GitHub, Travis CI, Linux OS, MongoDB, Elastic Beanstalk, Debuggers, VMs, Jira, ElasticSearch, p5, Docker