

Zachary Lee Yi-Hong

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EDUCATION

University at Buffalo, The State University of New York

Aug 2021-May 2023

Bachelor of Science, Computer Science

CGPA: 3.689 / 4.0

Coursework: Software Engineering Concepts, Operating Systems, Modern Algorithms, Computer Security, Data Science

EXPERIENCE

Software Engineer Intern

Aug 2022-Present

Spawwn

- Collaborated closely with the CEO to establish more than 80% (18+ components) of the Backend architecture, concentrating 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 front-end team and troubleshooted blockers by developers.
- Coded more than 50% backend code and facilitated 50+ code reviews.
- Transitioned to full stack in 2 weeks and coded 10+ front-end features using Next.JS and Typescript.
- Played a key role in spearheading company to Alpha release stages and highly recognized for impact and effort.

Algorithms and Complexity Teaching Assistant

Aug 2022-Present

CSE Department, University at Buffalo

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

Open-Source club Contributor

Aug 2022-Mar 2023

Make-Open-Source

- Contributed 5 new features and addressed issues at UB's open-source club's Python based Classic-RPG style game engine.
- Introduced 3 new core features such as Potions and Money, and classes such as Health and Speed.

PROJECT

Next Portfolio Template [TypeScript, NextJS, TailwindCSS, DaisyUI] [Independent Project]

Mar 2023-Apr 2023

- Constructed a portfolio template with 6 features, parsing a custom JSON file into a responsive UI website.
- Achieved an average TTI score of 2540 milliseconds which includes 30 images and build size of 68 MB.
- Integrated ease of scalability of content, through effective use of efficient pagination and high decoupling.

Web Hosted Password Manager [Go, MongoDB, Railway] [Independent Project]

Dec 2022-Mar 2023

- Conceptualized and implemented a full-stack password manager in 2 weeks, focusing on security and ease of maintenance.
- Leveraged industry standard protocols such as AES and RSA to safely communicate transactions.
- Open-sourced this project and wrote 2 detailed technical documents for ease of other developers to get involved.

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

Nov 2022

- Developed an intuitive file system visualizer presenting system's directories as an interactive graph.
- Utilized traversal algorithms and optimized data structures to write reusable, well-structured code.
- Designed code based on best OOP practices, ease of maintenance, decoupling, and scalability.

Project Fines [NodeJS, Express.JS, MongoDB] [Independent Project]

Jun 2022-Sep 2022

- Led a team of 2 in development of a traffic infringement fining system.
- Conceived, architected, and developed 100% of the Backend, 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.

SKILLS

Languages: Golang, Python, JavaScript, TypeScript, C

Tools/Technologies: GitHub, Vercel, Linux OS, MongoDB, Debuggers, Hadoop, Jira, ElasticSearch, p5, Docker, Next.JS, NodeJS, SQL, ElectronJS, OOP, ReactJS, TailwindCSS, DaisyUI, Jupyter, SCRUM, ZenHub, JSON

Skills: Critical thinking, Teamwork, Time management, Problem solving, Fast learner, Strong communicator