Zachary Lee Yi-Hong

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SUMMARY

Motivated, hardworking, and curious Senior in a BS Computer Science program with 9 months of Software Engineering experience. Working knowledge of Full-Stack, Backend, and Application Layer Software development.

EDUCATION

University at Buffalo, The State University of New York   *Expected Graduation May 2023*

Bachelor of Science, Computer Science

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

CGPA: 3.689 / 4.0

EXPERIENCE

Software Engineer Intern   *Sep 2022-Present*

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- Collaborated closely with the CEO to design 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 the frontend team and troubleshooted blockers by developers.
- Implemented more than 50% backend code and facilitated 50+ code reviews.
- Transitioned to full-stack and implemented 10+ front-end features using Next.JS and Typescript.
- Played a key role in bringing 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 EXPERIENCE

Web Hosted Password Manager [Go, MongoDB, Railway] [Independent Project]   *Dec 2022-Mar 2023*

- Designed 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 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 that presents the 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]   *June 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.

TECHNICAL SKILLS

Languages preferred: 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

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