

Education

University of Michigan

Expected December 2024

B.S. Computer Science | 3.78/4.0 | University Honors

Ann Arbor, MI

Relevant Coursework: Network Systems, Operating Systems, Web Systems, Database Systems, User Interface Development, Computer Organization, Computer Security, Data Structures and Algorithms, CS Theory

Skills

Software and Frameworks: AWS, Unix, Docker, Cypress, React, Flask, Node, Git, Wireshark, Firebase, MongoDB

Languages: C++, C, Python, Java, MATLAB, JavaScript, SQL, Assembly, HTML/CSS, Bash, VB

Experience

Center for Healthcare Engineering and Patient Safety

May 2023 - August 2023

Software Engineering Intern

Ann Arbor, MI

- Optimized Staffing Software at Walter Reuther Hospital with a multidisciplinary team, revolutionizing staffing by replacing manual scheduling with software; improved speed by over 200% and performed code cleanup
- Conducted multiple on-site visits to Walter Reuther Hospital to tutor and monitor software usage among medical staff. Iteratively improved the software based on user feedback to enhance functionalities
- Managed version control using Git, conducting extensive code reviews and produced comprehensive technical documentation, including detailed flowcharts and design documents
- Revamped Michigan Medicine's Internal Medicine database system, fixing key operational issues and adding user interfaces for efficient resident management; utilized SQL queries to streamline scheduling, billing, and training processes

University of Michigan College of Engineering

January 2024 - Current

Instructional Aide - Upper/Grad Level CSE Course

Ann Arbor, MI

- Facilitated learning in EECS 493 - User Interface Development as a Teaching Assistant; conducted office hours and responded to student emails, providing timely and effective academic support
- Hosted weekly discussion sessions for approximately 50 students, preparing and delivering materials that reinforced key concepts from the course, including JavaScript, HTML/CSS, Vue, Web Systems, and UI Design/Research

RentGPT.ai

September 2023 - Current

Engineering Lead

Ann Arbor, MI

- Pioneering RentGPT, a next-gen LegalTech chatbot for personalized lease consulting, with a multidisciplinary team
- Merged OpenAI API, React, and Flask to create an intelligent chatbot, adeptly managed using Agile and JIRA

Selected Projects

StoryLine | *Multi-user Social Network Platform*

Stack: React, Flask, MySQL

- Developed an **CRUD** application that supports user features such as post/deletion, likes, comments, and login/logout
- Implemented server-side dynamic pages using Flask and created a client-side application consisting of a **Flask REST API** for back-end, **React** for front-end, Tailwind **CSS** for styling, and **MySQL** for database management
- Leveraged **shell scripting** to streamline testing, deployment, and database manipulation processes, resulting in increased efficiency and productivity
- Conducted end-to-end testing using **Cypress** and deployed the project on an **AWS EC2** instance, resulting in 90% user satisfaction rate.

Linux-based OS | *Operating System with Network File System*

Stack: C++, C, BSD Socket, Python

- Developed a custom thread library featuring process control, context switching, mutual exclusion, and memory management, optimized for concurrency on a single processor; implemented a Python script for automated testing
- Implemented a pager for virtual memory management, supporting swap/file-backed virtual pages for mapping or storage
- Implemented a network file system supporting multithreaded CRUD operations and ownership control, and utilized BSD socket programming to establish robust client-server TCP communication protocols with connection error handling
- Implemented a TCP load balancer that assigns each incoming task to the least busy server