David Woo

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SKILLS

- Java | JavaScript | TypeScript | C++ | C | CosmosDB | Node | Express | React | jQuery | NoSQL | Git
- Azure | cloud computing | Frontend | Backend | Full-Stack | English, Korean - All professional proficiency

EXPERIENCE

Undergraduate Researcher

University of Washington | Bothell, WA   June 2023 – Present

- Led the design of a Django-based user management system, boosting user sign-up by 15% and exclusively serving University of Washington associates
- Collaborated in a 6-member agile team, streamlining weekly development sprints and ensuring 99.9% uptime with deployment on a Linux server
- Implemented robust Two-Factor authentication(2FA) for signup via Twilio, enhancing platform security and user data protection

Software Engineer intern

Mozzign | NewYork, NY   June 2022 – September 2022

- Participate in developing a healthcare research application that collects over 200 patients' medical via user electric device using PWA
- Configure Firebase cloud infrastructure based on the app needs and build login functionalities of the application
- Implement user authentication flow and set role-based authorization to secure patient data using OAuth and JWT
- Have daily scrum meetings to work collectively with UI/UX and data engineering team to discuss requirements from the medical client

SOFTWARE PROJECTS

Parallel programming research

Parallelization of Agent-based Models over Multi-GPUs   March 2023 – August 2023

- Developed a benchmark program to run the MASS CUDA library, focused on data science and parallel simulation in agent-based modeling(ABM)
- Ported the Bank Bail-in and Bail-out simulation from MASS C++ to MASS CUDA, as part of the benchmark test set, to stabilize MASS CUDA's execution.
- Reported bugs and compared the programmability between MASS C++ and MASS CUDA versions.

Personal portfolio website,

Web Programming and Design   October 2021 – December 2021

- Developed user interface with modern JavaScript frameworks, HTML, and CSS, which improve user satisfaction by 20%
- Developed object-oriented code in Node.js in accordance with industry standards.
- Designed and developed usability using jQuery to increase target audience engagement

Web Scrapping

Computer Science Principles   July 2020 – August 2020

- Devised and implemented a Searching job engine that finds jobs related to a user's skill
- Scraping web data using beautiful Soup. Structured with Python. Productionized using Flask
- Implemented the functionality to scrape and download data from 5 different job and internship portals complied in the.CSV file

EDUCATION

Bachelor of Science in Computer Science and Software Engineering

University of Washington | Bothell, WA   January 2021- Expected, December 2023

Related Course:

- Hardware and computer organization, Data structure & Algorithms, Statistics, Operating System
- Software Engineer Computer Programming, Management Principles for Computing Professionals