

DAVID WOO

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Skills

Programming Language: Java | C | C++ | JavaScript | Python | HTML/CSS

Frameworks: Node Js | Django | Flask | React | Nextjs

DevOps: Git | Sqlite | AWS | DynamoDB

PROFESSIONAL EXPERIENCE

University of Washington

Bothell, WA, USA

Undergraduate Researcher

June 2023 - December 2023

- Developed and implemented an intuitive user interface for the Interpretable Machine Learning Platform, resulting in a 50% increase in user engagement and a reduction of 20% in user error rates
- Developed a user management system using the Django framework that enabled Single Sign-On (SSO) signup and implemented 2FA SMS verification through integration with Twilio, resulting in improved security
- Collaborated with a cross-functional agile team of 6 members, participating in weekly development meetings to discuss progress, resolve challenges, and ensure timely completion of project milestones
- Coordinated with cross-functional teams, including UW IT, to deploy a project using Gunicorn and Nginx, resulting in a seamless and efficient internal application launch

Mozzign

New York, NY, USA

Software Engineer intern

June 2022 - September 2022

- Collaborated with the UI/UX team to design an intuitive user interface for the medical client's software resulting in a 25% decrease in user errors and improving overall user satisfaction
- Collaborated with a team of developers to create a healthcare research application that successfully collected medical data from over 200 patients via user electric devices, facilitating efficient data analysis and contributing to advancements in medical research
- Designed and executed an intuitive customer service User Interface (UI) using React, leading to a 30% improvement in customer satisfaction scores

PROJECTS & OUTSIDE EXPERIENCE

Task Tracker

Web Programming and Design

January 2024 - Present

- Engineered a Progressive Web Application (PWA) with Next.js hosted on AWS Amplify, offering users a streamlined experience for tracking task progress and managing time allocation
- Implemented DynamoDB as the primary database for data management, resulting in a 50% reduction in query response time and improved application performance
- Contributed to creating a user-centric application that enhances productivity and task management, emphasizing a commitment to delivering high-quality software solutions

Personal Portfolio Website

Web Programming and Design

October 2021 - Present

- Developed and implemented a personal portfolio website using modern Node.js, HTML, and CSS
- Designed and implemented innovative UI features using jQuery resulting in a 30% increase in target audience engagement

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

EDUCATION

University of Washington

January 2021 - December 2023

Bachelor's, Computer Science

GPA: 3.61

CERTIFICATIONS

Amateur Codebreakers Issued by Central Washington University · Apr 2023

Dean's List issued by the University of Washington · Dec 2021