

Alex Wu

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Technical Skills

Languages: Java, JavaScript/Typescript, Python, SQL, C/C++, HTML/CSS

Frameworks & Tools: AWS, React, Next.js, Node.js, Express, MongoDB, PostgreSQL, GraphQL, Git, Linux, Cypress, Jest

Experience

Software Engineer Intern

Jan 2024 – Present

Supporting Lines 🔗

Vancouver, BC

- Reduced annual costs by **30%** by modifying the report database replacing **AWS** with **Google Cloud Platform** due to high outbound network bandwidth demands
- Implemented new functionalities for existing cloud-based web app powered by **Node.js**, **React** and **Next.js**, leading to improved customer satisfaction for over **500+** clients
- Developed **Python** codebase to generate data visualizations using **Weasyprint**, **Qualtrics API**, and **Pandas**, and hosted on **Google Cloud Functions** as a microservice
- Utilized **Cypress** and **Jest** testing frameworks to debug and validate new features and functionalities
- Created scalable **RESTful APIs** using **Python** and **Flask**, hosted on **Heroku**, to facilitate seamless product synchronization between internal teams

Software Engineering Research Assistant

Nov 2023 – Present

Pacific Laboratory for Artificial Intelligence (PLAI) 🔗

Vancouver, BC

- Assisted a team of graduate students with developing data collection software used to train Minecraft-based AI
- Enhanced a Minecraft Mod using **Java** and **AWS Lambda** functions to parse player coordinates while storing into a **AWS DynamoDB** upon server departure
- Automated test server deployment with a **Python** script, reducing load time from **5 minutes to 30 seconds**

Software Developer

Apr 2023 – Present

Enactus UBC 🔗

Vancouver, BC

- Led UI design team by modelling and implementing high-fidelity mock-ups following a mobile-first approach
- Increased site traffic by **175%** through relentless SEO-optimized web development and consistent updates
- Developed a Slack bot with **JavaScript**, **Slack API**, **GSpread**, **OpenAI** to automate hours-tracking via Slack
- Reduced work time from **9 hours to 15 minutes** by developing **Python** algorithm optimizing workshop scheduling

Projects

Medify 🔗 | Mappedin SDK, React, Node.js, Typescript

- Created a dashboard utilizing **Mappedin's SDK** for patient tracking and optimal pathing for hospital workers
- Optimized a **React** app with 15+ components, **reducing prop-passing by 80%** leading to enhanced performance
- Employed **Redux** for state management, optimizing data flow and enhancing app responsiveness

Job Board Clone 🔗 | React, Node.js, Express, Oracle

- Successfully replicated a job portal using **React** and **Node.js** to simulate job postings, profiles, and user connections
- Implemented **RESTful API** endpoints to manage job postings and used **Oracle** for persistent data storage
- Utilized **Jest's** snapshot testing for UI components to capture and track changes over time

Room Rover 🔗 | Node.js, Javascript, Puppeteer API

- Engineered a bot utilizing the **Puppeteer API**, to automate the study room booking process at a local library
- Streamlined the booking process by reducing the average booking time from **2 minutes to 2 seconds**

NBA Fantasy Draft Simulator 🔗 | Java, Java Swing, JUnit 5

- Accelerated development by following one-week sprints to implement both a terminal and GUI based application
- Integrated audiovisual components, data loading and saving, and Object-Oriented Design principles

Education

University of British Columbia

Expected Graduation: May 2025

Combined Major in Computer Science and Business, Co-op

Vancouver, BC

- **Key Courses:** Data Structures and Algorithms, Operating Systems, Relational Databases
- **Extracurricular:** Teaching Assistant for Management Information Systems (**R**, **Tableau**, and **Excel**)