

YIFEI XIAO

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EDUCATION

University of British Columbia
Bachelor of Science in Computer Science

Sept 2017 – May 2023
Vancouver, BC

EXPERIENCE

Tetra Tech 🔗
Software Engineer

May 2023 – Current
Vancouver, BC

- **Led backend development for the main product of FusionMap**, refactoring the monolithic Flask backend into a microservice-based architecture on Express, resulting in an **83% improvement in API speeds**.
- **Designed the architecture for a database and cloud storage system** that handles terabytes of client data daily.
- **Set up a CI/CD pipeline** using GitHub Actions and YAML files, leveraging self-hosted runners on virtual machines for deployments across multiple regions. Integrated end-to-end tests using Mocha/Chai.
- Optimized a map points rendering REST API using a combination of asynchronous, algorithmic, and PostGIS SQL improvements, **reducing response time by 99% (10 minutes to 5 seconds)**.
- Built a subscription-based payment system utilizing Stripe API for seamless transactions.

Alida 🔗
Software Developer Intern

Jan 2022 – Aug 2022
Vancouver, BC

- Worked on two new Dashboard types under Alida Analytics that **attracted 41 new enterprise customers**.
- Developed the One-Click Dashboard, **reducing dashboard creation time by 75%** and integrating AI models for customer feedback analysis.
- **Implemented mobile platform integration for Alida Dashboards**, incorporating an ETL pipeline to merge data collected on mobile platforms with the existing dashboard database.

Intel 🔗
Python Developer Intern

Sept 2019 – May 2020
Vancouver, BC

- Developed an internal Python tool utilized by the Intel Formal Verification team, serving as an automated verification pipeline for IC designs.
- Optimized formal verification processes using Python scripts, reducing manual tasks that would take hours down to seconds.
- Verified design specifications for individual blocks and circuit designs, Utilizing SVUnit for unit and integration testing.

PROJECTS

Moda 🔗

- Conceptualized and developed Moda, a home furnishing e-commerce platform inspired by Ikea's theme of minimalistic and functional design.
- Designed scalable product listing and navigation pages by utilizing React's component-based architecture.
- Implemented a site-wide context to manage the state of the shopping cart, enabling real-time updates of cart items across the website.

UBC Course Finder 🔗

- Created a web application tool for easily finding UBC courses based on user preferences.
- Extracted course locations from the UBC Wayfinding website using parse5 and processed into JSON files for querying.
- Built a scheduler algorithm that schedules course sections into available classrooms.

SKILLS

Languages: TypeScript, JavaScript, Python, SQL, HTML/CSS, Java

Frameworks and Tools: Express, Flask, React, Node.js, Microsoft Azure, AWS, Linux, Git