

Jon Liu

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EDUCATION

University of British Columbia

Vancouver

Bachelor of Computer Science (GPA 4.33/4.33)

2024-present

- *Relevant Coursework:* Models of Computation; Software Construction. Data Structures and Algorithms.

EXPERIENCE

UBC Motion - Software Developer

May 2025 - Present

- **Developed a scalable recycling pickup web app** for United We Can (**600+ customers**) using **Next.js** and **Supabase**, enabling real-time request management and driver coordination
- **Utilized GitHub-based workflow with pull requests and code reviews** to maintain code quality and streamline development through **CI/CD pipelines**

Projects

StudyBot *React, Python*

September 2025

- Implemented a question generation service using OpenAI's API integrated with a FastAPI backend to produce sample questions from provided notes and exams.
- Developed a context-building pipeline that uses embedding and cosine similarity to improve question relevance.
- Implemented secure authentication using Auth0 for user access control and integrated MongoDB for user data management and storage

Audio Reasoning Benchmarking Paper *Python OpenAI Whisper Elevenlabs TTS*

July 2025 - September 2025

- **Built secure Docker containers** to execute and validate model generated code for reproducibility and system isolation.
- Developed an end-to-end pipeline to transcribe and evaluate audio clips using **Python, Elevenlabs TTS, and OpenAI whisper**.

Lesson Plan Generator *Typescript Express.js Firebase*

August, 2025

- Built a **scalable full-stack app** that creates interactive lesson plans using **React + Typescript** on the frontend, and **Express.js** on the backend integrated with **OpenAI API + Mammoth.js for content processing**.
- Integrated **Firebase Authentication and Firestore** for persistent storage of user lesson plans.
- Built and deployed with **CI/CD via GitHub Actions**, hosting the project with **Azure App Services**.

TFTdle *Java Swing JUnit*

February, 2025

- Developed an interactive Java GUI game using **Swing**, applying OOP principles for improved organization and maintainability
- Built **JUnit Jupiter** tests achieving > 98% coverage.

WORK EXPERIENCE (Non-Tech)

- Richmond Mathnasium Math Instructor 2023 August - 2024 September
 - Developed strong communication and problem-solving skills through explaining complex concepts to improve student comprehension and engagement.

SKILLS

- Languages: Java, HTML, CSS, Javascript, React, Python, Typescript, Node.js, C#
- Technologies: SoapUI, OpenAI api, ElevenLabs api, Google TTS api, Git/GitHub, Firebase, Azure