

JIMMY LIU

Dedicated Software Engineer and Student

@ jimmy.liu@uwaterloo.ca

🌐 ji-mmyliu

🌐 jimmyliu.dev

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EDUCATION

University of Waterloo

Bachelor of Software Engineering Candidate (92% Cumulative GPA)

📅 September 2023 – April 2028

EXPERIENCE

Software Engineer Intern Shopify

📅 September 2025 – December 2025

- Built developer shortcuts to automatically compile the Shopify POS mobile app for end-to-end testing, integrating with Appium through **Ruby** and **Bash** scripting.
- Eliminated flakiness in critical end-to-end tests by identifying root causes and hardening test infrastructure, reducing test flake rate from 14% to 0% and unblocking merge-queue adoption.
- Improved CI debuggability by building an AI-assisted log analyzer to surface root causes from verbose Appium failure logs.

Software Engineer Intern Spellbook

📅 January 2025 – April 2025

- Boosted weekly active users by **12%** through development of advanced legal playbook configurations via **React** Microsoft Word extension and **Express** backend.
- Led deployment of Spellbook's freemium site through the **AWS CDK**, enabling potential clients to trial key features before purchasing, driving a **14%** increase in user conversions.

Software Engineer Intern Royal Bank of Canada

📅 May 2024 – August 2024

- Led the development of an NLP-powered **Python** solution to parse and analyze third-party legal contracts and ensure compliance with industry standards, reducing processing time by 82%.

Lead Software Engineer UW Blueprint

📅 May 2024 – Present

- **Technologies used:** React.js, Express, MongoDB, Firebase, Kubernetes, Linux, Docker
- Led engineering team in developing a web application for Extend-A-Family, enabling delivery of financial literacy lessons for children
- Drove system design and facilitated communication between product managers and the non-profit organization, ensuring alignment and successful delivery

TECHNICAL KNOWLEDGE

- **Programming Languages:** Python, Java, C, C++, Go, Ruby, Typescript, Bash, Scala

- **Frameworks:** React, Express, Flask, Django, Gin, Tensorflow, AWS, Linux, Git, Docker, Kubernetes, Jenkins

PROJECTS

Screentime Showdown 🌐 devpost.com/software/screentime-showdown

📅 October 2023

- Group competition site that helps people overcome social media addiction, made with **React.js**, **Express.js**, and Instagram API
- Won Hack the Valley 2023's Best Financial Hack Award

Laser Guitar 🌐 github.com/ji-mmyliu/laser-guitar

📅 September 2023 – December 2023

- A functioning electric guitar with lasers for strings! Built using **Python**, **Raspberry Pi**, and a **Tensorflow Keras** machine learning model for chord fingering detection

Wireguard VPN Wizard 🌐 github.com/ji-mmyliu/wg-vpn-onboarder

📅 July 2023 – August 2023

- CLI that configures, deploys, and manages personalized virtual private networks utilizing **Wireguard** technology, written in **Golang**

Discord Bot Online Judge 🌐 github.com/DiscordBotOnlineJudge

📅 March 2021 – June 2023

- An open-source public competitive programming online judge platform hosting **10** contests, **16** programming languages, over **60** challenges, and over **100** users
- Developed a Discord Application using **Python**, **MongoDB**, **gRPC**, and an additional **Flask** web frontend