

# JIMMY LIU

## Motivated & Dedicated Student & Developer

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📍 Toronto, ON

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## EXPERIENCE

### Full Stack Software Developer

#### Royal Bank of Canada

📅 July 2023 – August 2023

📍 Toronto, ON

- Developed a tool to grade APIs on metrics such as performance and security to boost **site reliability** and encourage API improvement and maintenance across all RBC web frameworks.
- Integrated a full stack web application with the **Backstage** framework and **React.js** for frontend, a **Golang** backend server, **MongoDB**, and **PostgreSQL** databases, and **Apigee** API management into the RBC developer portal with **850+** developers and a catalog of **3600+** APIs.
- Crafted strong unit test suites using **Jest** and **Golang** testing libraries.
- Engaged with **Agile** methodologies and **Devops** frameworks such as **Jenkins**.

📅 July 2022 – August 2022

📍 Toronto, ON

- Designed an internal developer rewards system into the RBC Innersource Portal to improve developer productivity and promote open source contributions and collaboration within RBC.
- Built a full stack web application with an **Angular.js** frontend, **Python FastAPI** backend, and **PostgreSQL** database.

### Lead Frontend Developer

#### Project Metropolis

📅 Feb 2022 – June 2023

📍 Toronto, ON

- Constructed the official school website's client interface in **React.js**.
- Collaborated with the backend and graphics design team to create student schedules, announcements, and school maps to organize and centralize student resources.

### Competitive Programming Club Vice President

#### High School Computer Programming Team

📅 Oct. 2021 – June 2023

📍 Toronto, ON

- Prepared and delivered competitive programming and game development lessons for over **150** club members.
- Hosted, judged, and delivered a workshop for a province-wide hackathon for high school students across Ontario.

## TECHNICAL KNOWLEDGE

Python Java C, C++ Golang Javascript Typescript  
Node.js React.js Angular.js Flask Django Jinja  
SQL Tensorflow HTML CSS NGINX Linux Git  
Vim Jira Github Docker Kubernetes Jenkins

## EDUCATION

### University of Waterloo

#### Bachelor of Software Engineering Candidate (3.95 GPA)

📅 Sept. 2023 – April 2028

## PROJECTS

### Discord Bot Online Judge

🌐 [dboy.jimmyliu.dev](https://dboy.jimmyliu.dev)

📅 March 2021 – Ongoing

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

### Screentime Showdown

🌐 [devpost.com/software/screentime-showdown](https://devpost.com/software/screentime-showdown)

📅 October 2023

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

### Laser Guitar

🌐 <https://github.com/ji-mmyliu/laser-guitar>

📅 Sept 2023 – Ongoing

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

### Sign Language Anki Deck Generator

🌐 [github.com/ji-mmyliu/asl-anki-generator](https://github.com/ji-mmyliu/asl-anki-generator)

📅 July 2023 – Ongoing

- Quickly generates a large deck of Anki flashcards to help people learn and review American Sign Language vocabulary. Made with **Python** and **FastAPI**.

### Wireguard VPN Wizard

🌐 [github.com/ji-mmyliu/wg-vpn-onboarder](https://github.com/ji-mmyliu/wg-vpn-onboarder)

📅 July 2023 – Ongoing

- Interface written in **Golang** that generates and manages your own Virtual Private Network using **Wireguard**.

## AWARDS

### Canadian Computing Competition

Senior Division Honour Roll (95<sup>th</sup> percentile)

### picoCTF Capture the Flag Contest

Third Place in Canada