

Bill Li

bill-l1.github.io

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Skills

Front-end: React, React Native, React Native Web, Redux, Next.js, Expo, Vue.js

Other web technologies: Node.js, Express, Web3, Laravel, Flask, Docker, MongoDB, Heroku, AWS, Firebase, PHP, HTML, CSS

General: JavaScript, TypeScript, Python, C++, Java, Kotlin, MySQL, Git, Linux, Bash

Graphics: WebGL, OpenGL, GLSL, TWGL.js, Three.js, Shadertoy

Experience

May–Aug 2022 **Full-stack Developer**, *Hypotenuse Labs (Software Consultancy)*

- Built key features for a Web3/NFT marketplace using **Next.js** and **ethers.js** ([link](#)).
- Designed several scalable and reusable components using **Figma**, implemented with **Tailwind**.
- Added OAuth user authentication (Auth0) and maintained data parity with existing Web3 users.
- Acted as technical lead for **2 weeks** to build a critical MVP for client stakeholders.

Jan–Apr 2021 **Full-stack Engineer**, *Zamplo (Medical Software)*

- Built ZamploAdmin, a provisioning and research tool made in **React Native Web** and **Redux**.
- Built web app to integrate Zamplo's API with Hubspot, created in **Flask** (Python).

May–Aug 2020 **Full-stack Developer**, *eleven-x (IoT)*

- Expanded features and performed automated unit testing for eleven-x's **Laravel** web app (PHP).
- Improved on internal microservices with **Laravel** and **Vue.js**. Developed **bash** scripts for monitoring.
- Built LoRaWAN decoders in JS for several IoT devices currently serving UBC.

Projects

Jan–Aug 2021 **Resonance**, *Full-stack, Mobile*

- Directed and assisted a team of 5 to make *Resonance*, a music sharing app for Web, iOS and Android.
- Built core features for the **React Native Web/Expo** mobile client, using **Redux** for state management.
- Created architecture for Spotify authentication in the API, built with **Express (Node)** and **MongoDB**.
- Developed entirely in **TypeScript (ES6)**.
- Performed Scrum meetings and weekly code reviews for fellow engineers.
- Received **67 sign-ups** for the MVP.

[Link to demo](#)

Jan 2022 **string theory**, *Graphics*

- Experimental audio-visual horror demo built entirely in **WebGL (JS)** for browsers.
- Created fragment shaders in **GLSL** to emulate visual glitches and other post-processing effects.

[string-theory.bill_l1.repl.co](#)

Sept 2022 **chaos theory**, *Desktop, Graphics, Game Dev*
(WIP)

- First-person shooter inspired by *string theory*.
- Game engine built from scratch in **C++** and **OpenGL**.

Education

2019–Present **Undergraduate**, *University of Waterloo, Computer Science*

Relevant courses: CS135 Designing Functional Programs, CS136 Elementary Algorithm Design, CS246 Object-Oriented Development, CS240 Data Structures & Data Management, CS241 Foundations of Sequential Programs, CS251 Computer Organization & Design, CS350 Operating Systems, CS341 Algorithms, CS365 Application Development, CS370 Numerical Computation, CS485 Foundations of Machine Learning, BET300 Foundations of Venture Creation