

Justin Lau

ASPIRING ENGINEER AND SOFTWARE DEVELOPER

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Education

University of Waterloo

Waterloo, ON

Candidate for Bachelor of Computer Engineering (3.9/4.0 GPA)

2022 — Present

Courses: Data Structures & Algorithms, Digital Computers & Systems, Systems Programming & Concurrency

Technical Skills

Languages: Java, JavaScript, Python, HTML/CSS, C#, C/C++

Libraries/Frameworks: React, Next, ASP.NET Core, Node.js, Express.js

Developer Tools: Git, MySQL, SQL Server, MongoDB, AWS, Azure, GCP, Firebase, Figma, NSubstitute, Postman

Experience

Software Engineering Intern — Backend Engineering Team

Jan. 2024 — Present

SPS Commerce

Minneapolis, MN, USA (Remote)

- Engineered background processing services on the company's analytics platform using ASP.NET Core to automate extraction and retrieval of retailer (Amazon, Sketchers, & Walmart) data from SQL Server DBs
- Developing a supplier configuration utility using React and Redux in TypeScript, leading to an increase in work efficiency when modifying client supplier data
- Converted legacy pipelines to use YAML Azure templates, decreasing deployment errors
- Integrated AWS EC2 & Lambda to enhance dataflow and security for current and legacy software

Software Developer Intern — Virtual Reality Team

May 2023 — Aug. 2023

BCS Automation

Belleville, ON

- Engineered the data pipeline behind Canada's VR platform **HoloShip** to simulate ship systems & environments using ASP.NET servers to apply real-time logic to raw sensor data to digitally replicate ships (**digital twins**)
- Developed a scalable REST API using ASP.NET Core Web API, covering **20+** endpoints and using CRUD operations to process Modbus sensor data from MySQL databases
- Designed MySQL queries on Azure to facilitate storage from **5300+** sensors, enhancing data accessibility
- Developed plugins to provide apps with utility functions for HTTP requests and automated 3D simulations

Software Engineering Intern — Frontend Engineering Team

Jun. 2021 — Aug. 2021

HealthSmart Technologies

Toronto, ON

- Developed a medical records integration website, providing health data access for patients and doctors
- Built pages to visualize 3D models of patients with Three.js and Blender for real-time browser rendering
- Converted Figma mockups into dynamic React webpages, enhancing foot traffic by **33%**

Game Developer — Game Systems Team

Nov. 2021 — Aug. 2022

Legion Studios

Toronto, ON

- Led the development of multiplayer games, amassing **12,000 followers**, **100,000 plays**, and **1000+ sales**
- Improved menu designs, animations, and storyline elements, boosting average daily plays by **30%**

Projects

ReadRight — Dyslexia Reading Aid 🦄 | *React, Express, Node, ChakraUI, Firebase, GCP, Cohere API*

- Constructed a reading aid site with AI-generated prompts and voice analysis using React for the frontend & Cohere's LLM API for the prompts, achieving **97%** accuracy in analyzing user reading proficiency
- Implemented Firebase for realtime user authentication & added dynamic login messages with ChakraUI
- Integrated Google Cloud's speech-to-text API via REST endpoints in Express, enabling reading accuracy analysis

DevConnect — Developer Networking Platform 🦄 | *React, Next.js, MongoDB, Express, Node*

- Engineered a Roblox developer networking platform to improve collaboration between studios & developers
- Integrated Roblox's API to provide in-depth analytics on user portfolios, game engagement, & studio revenue
- Anticipated to reach **300+** developers and **30+** game studios with more than **20 million+** game visits

Achievements

Lighthouse Hacks Founder - One of [the GTA's largest hackathons](#) with 250+ participants & \$40,000+ in prizes

Professional Engineers of Ontario Scholarship - Top 3 Ontario engineering undergraduates

Blockchain Sponsor Award Winner (2x) - Hack The North, Canada's largest hackathon with 1000+ participants

Best Project Award - Hack The 6ix, Toronto's largest hackathon with 450+ participants

First Kyu Brown Belt - Japan Karate Association, training for my black belt degree in Shotokan Karate