Justin Lau

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TECHNICAL SKILLS

Languages: JavaScript, Python, HTML/CSS, C#, C/C++
Libraries/Frameworks: React.js, ASP.NET Core, Node.js, Express.js
Developer Tools: Git, MySQL, MongoDB, Azure, GCP, Firebase, Figma, Postman, Vercel, Netlify

EXPERIENCE

Software Developer Intern   May 2023 — Aug. 2023
BCS Automation   *Belleville, ON*
- Spearheaded the backend development of HoloShip, bringing the Canadian program to its execution phase
- Developed a scalable REST API using ASP.NET Core Web API, covering **20+** endpoints and using CRUD operations for real-time data processing from MySQL databases
- Architected ASP.NET servers to process raw signals using ship system logic, boosting simulation accuracy by **25%**
- Designed MySQL queries on Azure to facilitate storage from **5300+** sensors, enhancing data accessibility
- Implemented plugins to provide apps with functions for HTTP requests and automated 3D simulations

Software Developer Intern   Jun. 2021 — Aug. 2021
HealthSmart Technologies   *Toronto, ON*
- Developed an EMR integration website, providing health data access for patients and doctors
- Built 3D patient visualization pages with Three.js and Blender for real-time browser rendering
- Converted Figma mockups into dynamic React.js webpages, enhancing foot traffic by **33%**

Game Software Developer   Nov. 2021 — Aug. 2022
Legion Studios   *Mississauga, 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%**
- Optimized frame rate performance by **50%** by implementing scalable Lua libraries for game systems

PROJECTS

ReadRight — Dyslexia Reading Aid 🔗 | *React, Express, Node, ChakraUI, Firebase, GCP, Cohere API*
- Constructed a dyslexic reading aid site with AI-generated prompts and voice analysis using React & Cohere's API, 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

IntelliPaint — AI Art Generator 🔗 | *React, MongoDB, Express, Node, Tailwind CSS, OpenAI API*
- Developed an AI art generation site using the OpenAI API to make high-quality art from text prompts
- Created a showcase page with Tailwind CSS and React, enabling users to search and download art
- Built REST endpoints with Express.js to connect to a MongoDB cluster & access images in Cloudinary

DevConnect — Developer Networking Platform 🔗 | *React, 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

OtakuBot — Administrative Discord Bot 🔗 | *Python, Replit, OpenWeatherMap API, Discord API*
- Developed a Discord bot in Python to help admins on **25+ servers** manage **500+ members**
- Increased user engagement by **30%** through message-based games built with the Discord API and Repl.it's DB

ACHIEVEMENTS

Lighthouse Hacks Organizer - Attracted 250+ hackathon participants and $40,000+ in sponsorships
MSU Brain Injuries Technical Lead - Revamped the company website with React.js, attracting 50+ members
Best Project Award - Toronto's largest hackathon, Hack The 6ix 2023
Ontario Engineering Scholarship - Professional Engineers of Ontario

EDUCATION

University of Waterloo   Waterloo, ON
Candidate for Bachelor of Computer Engineering