

Nathan Luong

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EDUCATION

McMaster University

Hamilton, ON

Bachelor of Engineering: Software Engineering

Aug. 2020 – May 2024

Relevant Courses: Data Structure and Algorithms, Object Oriented Programming, Databases, Software Design

EXPERIENCE & LEADERSHIP

Junior Full-Stack Developer – *jShop Platform*

Oct 2022 – Dec 2022

Jamlabs Data Science

Toronto, ON

- Developed, optimized, and shipped **10+** client-facing front-end features using **React.js** and **Redux** based on approved UI/UX designs.
- Implemented, and deployed **4 Express.js REST endpoints** to enable file uploads and CRUD operations on existing **DynamoDB** and **AWS S3** clusters.
- Utilized **Jest** and **Husky** to build automated git workflows and unit tests for 3 JavaScript code-bases.

Junior Back-end Developer – *Tritum Digital Project*

May 2022 – Oct 2022

Jamlabs Data Science

Toronto, ON

- Engineered a **Flask** microservice to collect and analyze trading information from **10+** crypto-currency exchanges and over **20+** high-volume-traded accounts.
- Designed, deployed, and maintained a **PostgreSQL** database on **AWS Aurora** to store collected trading data that facilitates PNL calculations, account management, and data reconciliation.
- Integrated and deployed the reporting service onto existing AWS cloud infrastructure via **Terraform** and **AWS Cloud Formation** runs alongside 7 legacy service.
- Improved and automated **80%** of accountant's workflow for data collection and daily financial reporting.

Back-end Developer Intern

May 2021 – August 2021

Opal LLC

Los Angeles, CA, United States

- Engineered a back-end system using **Django** allowing users to upload custom **NFTs** onto multiple decentralized storage applications such as **Pinata Cloud**, **IPFS**, etc.
- Researched and developed a blockchain-based transaction processing system on the **XRP Ledger** to ensure **30+** consecutive secure NFT transfers.

Ground Controls Team Lead

May 2019 – Present

McMaster Rocketry Team

Hamilton, ON

- Led a team of **12** engineering student peers, to deliver a communication solution using bi-directional real-time **Lora** telemetry, data visualization, and remote launching for team entry into **Launch Canada Competition**.
- Acted as **project manager** for Flight Control and Ground Control teams; responsible for managing budget of **\$15k+**, developing project timeline and execution plan to meet competition deadlines.

PROJECTS

🔗 **Viz - AWS Diagramming made easy** | *React, Tailwind, Redux*

2022

- Developed a front-end app providing back-end developers the ability to visualize, and export their **AWS infrastructure diagram**.
- Integrated with **250+** **AWS popular services** and **100+** **AWS resources**.

🔗 **McMaster Rocketry Website** | *GraphQL, React, NextJS, Firebase*

2021

- Created the McMaster Rocketry website to advertise and promote the team achievements.
- Built a content management system in **TypeScript** for administrators to update content on the website such as sponsors, blog posts, and team members.

TECHNICAL SKILLS

Languages: Python, Java, PostgreSQL, MySQL, JavaScript, TypeScript, HTML/CSS, R, C++, C, C#

Frameworks: React, Tailwind, Redux, MUI, Node.js, ExpressJS, NextJS, Flask, Django, FastAPI, Kafka, Airflow

Cloud: Docker, Kubernetes, Google Cloud Platform, AWS, Terraform, CloudFormation, DataDog

Developer Tools: Git, Github, Docker, IDE, Linux, Windows, WireShark

General Software: MS Office Suite, Jira, Shortcut, Confluence