Roy Li

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Education

Bachelor of Computer Science ⏱ Sept 2020 — Present
Dean's Term Honour List (F'20, W'21) 📍 University of Waterloo
- Math 115 (Linear Algebra) Teaching Assistant, AniMusic Ensembles, CEMC Committee

Work Experience

Software Engineering Intern </> Node.js (Ember.js), Python (Flask, SQLAlchemy, Celery), Docker
FreshBooks 📍 Toronto, ON ⏱ Jan 2022 — Present
- Assisted in transition of app marketplace backend from OpenChannel to Contentful due to an acquisition and created scripts to trivialize the migration of data with automatic compression for oversized images using **Libsquoosh**
- Improved efficiency and conformance to **OpenAPI** standards of App Store backend gateway and enhanced components for frontend web app built with **Ember.js** in accordance to **pixel-perfect design**
- Created prototype and write-up for feasibility and execution of a **recommendation system** for the new App Store

Software Engineering Intern </> Node.js (NestJS, TypeORM, React, Apollo), GraphQL, Docker, ElasticSearch
Tribe Community Platform 📍 Toronto, ON ⏱ May 2021 — Aug 2021
- Implemented APIs allowing users to create Apps — a key feature of Tribe V2, a **Forbes Cloud 100 Rising Star** platform for creating highly customizable communities — using **NestJS microservices** and **GraphQL**
- Optimized average query time by **72%** by implementing batch operations to solve the **N+1 problem**
- Spearheaded development of the **Zapier app**, the most requested feature from Tribe V1, improving the UX and response times by using webhooks over polling for thousands of early-access communities and key stakeholders
- Led **agile** sprint planning using **Jira** and daily standups in feature-oriented teams with **GitLab** for version control

Software Engineer </> Node.js (RoutingControllers, PG, React Native), WebSockets, PostgreSQL, Docker
WZMH Architects 📍 Toronto, ON ⏱ Mar 2020 — Jul 2020
- Created software for BlackBox5 IoT project to control objects (e.g. lights, roller shades) through a **React Native** app and configurable sensors with live updates using **WebSockets**
- Created **REST API** with **Node.js RoutingControllers** to interface with an Arduino microcontroller, storing device and connection data in a **PostgreSQL** database and deployed using **Docker**

Projects and Volunteering

Web Development Executive </> Node.js (React, Storybook, Gatsby), SCSS
Hack the 6ix 📍 Toronto, ON ⏱ Jan 2022 — Sept 2022
- Developed **React** components based on updated designs for the 2022 hackathon landing page & hacker dashboard

intabs.io </> Node.js (Next.js, React, MobX), Java (Spring)
- Created **REST API** using **Java Spring** to handle discovery and tracking of internship details and processes as well as approval queues for user-contributed salaries, reviews, and interview timelines
- Built **SPA** with **Next.js** for users to easily search companies and view others' interviewing progress or track their own

BlockOJ </> Node.js (Express.js), Pug, C, PostgreSQL, AWS EC2
- Winning project for Hack the 6ix hackathon designed to introduce youth to coding and foster problem-solving skills
- Built **MPA** with **Express.js** allowing users to submit solutions using a drag-and-drop block-based format
- Solution validity generated on-demand by running the compiled "block" program through a **C**-based judge

TriviaMaster </> Node.js (discord.js, Remix, React, Apollo, Hapi), Hasura, PostgreSQL, Redis
- Platform for users to play trivia games through a Discord bot, website, or mobile app frontend with >300 000 users
- Auth service built in **TS** using a custom-made decorator-based wrapper over **Hapi** for control over **Hasura** resources

Skills

Languages: JavaScript/TypeScript, Python, Java, C/C++, Elixir
Server/Web: Node.js, Deno, NextJS/React, Vue/Nuxt, NestJS/Express, Django/Flask, REST, GraphQL, Phoenix

Tools: Docker, Git, Jest, Office, Jira
Services: PostgreSQL, MongoDB, Redis, TypeORM, SQLAlchemy, Prisma, Kafka

Awards

Semifinalist (>1100 participants) — TD Cybersecurity Live Case Competition ⏱ Dec 2020
- Created proof-of-concept and pitched solution for case study to executives and engineers at Canada's largest bank