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 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   **Tools:** Docker, Git, Jest, Office, Jira
Server/Web: Node.js, Deno, NextJS/React, Vue/Nuxt,   **Services:** PostgreSQL, MongoDB, Redis,
NestJS/Express, Django/Flask, REST, GraphQL, Phoenix   TypeORM, SQLAlchemy, Prisma, Kafka

Awards

Semifinalist — TD Cybersecurity Live Case Competition   ⊙ Dec 2020
- Created PoC and pitched solution to executives and engineers at Canada's largest bank among >1100 participants