

Bruce Hong

Computer Science & Business Administration Double Degree – 3A

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SKILLS

Languages:

JavaScript, TypeScript, C++,
Python, HTML/CSS, SQL

Tools and Frameworks:

Node.js/Express, Django (Rest
Framework & Graphene),
React, React Native, Redux,
MobX, Apollo Client,
ElasticSearch, Microsoft Azure,
Linux/Unix

EDUCATION

University of Waterloo

Candidate for Bachelor of
Computer Science | 2022

Wilfrid Laurier University

Candidate for Bachelor of
Business Administration | 2022

AWARDS

Semi-Finalist, BDO New

Venture Competition | 2018

Top 32 of 300+ teams in a
competition to design a
product, develop business
models and pitch it to experts

University of Waterloo

President's Scholarship of Distinction | 2017

95%+ early admission average

1st Place, DECA ICDC | 2015

1st out of 500+ teams in an
international business case
competition for personal
financial management

INTERESTS

Tennis, badminton, hiking,
music, card magic

EXPERIENCE

Secret Mission Software

Software Developer | Jan 2019 – Apr 2019

- Led the development of several mobile applications using **React Native** with state management frameworks such as **Redux**, **MobX** and **Apollo Client**
- Converted REST APIs to GraphQL with **Django**, **Graphene** and **PostgreSQL** to support customizable requests, reducing average payload size by ~80%
- Developed a custom search engine using **Django** with **ElasticSearch** to provide fast, customizable querying
- Researched and implemented SEO-friendly dynamic webpages with **React** using **Next.js** for server-side rendering
- Met with clients to design and scope features using **JIRA** and **Zeplin**

Finastra

Software Developer | May 2018 – Aug 2018

- Implemented multi-tenancy in several RESTful microservices using **Node.js/Express**, **NoSQL** and **AMQP**
- Designed and developed customizable logging and middleware injection modules for AMQP using **Node.js** and **RxJS** which provided performance monitoring and increased messaging reliability by ~50%
- Coordinated with DevOps to create microservice scaffolds, eliminating project setup time by generating templates and associated CI/CD pipelines
- Implemented new integration testing strategies with **Mocha/Chai** and **Microsoft Cosmos SQL** API which reduced database costs by ~60%

PROJECTS

Charity Chain – Hack the North

React, Firebase, Blockmason Link

- Web app allowing donors to monitor how charities spend their donations by storing donation and transaction data on a blockchain
- Created web views using **React** and integrated **Firebase Realtime Database** as an abstraction layer for the blockchain to reduce request latency

inCite

React, MobX

- Google Chrome extension that scrapes the user's active webpage to generate citations and store them to bibliographies
- Led development with **React** + **MobX** and organized bi-weekly meetings to decide next steps and delegate work

Zombie Survival Game

Node.js/Express, socket.io, Phaser.js

- Multiplayer browser game where players work together to gather resources and survive increasingly difficult waves of attacking zombies
- Implemented basic zombie spawning, pathing and damage algorithms