Liang Liu

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Education

University of British Columbia, Vancouver BC, Canada   Sep *2019 – Apr 2023*
BSc Computer Science   Cumulative GPA: 94%, Major GPA: 98% (4.0/4.0)
Activities: Computer Science Undergraduate Teaching Assistant & Marking Coordinator
Scholarships: Recipient of over $95,000 in scholarships. UBC Centennial Entrance Award (full ride), Horatio Alger
Hackathons: 8 Hackathons, **4-time** winner (NWHacks top 10) (BizHacks 2nd) (MLH NHWT 2nd) (HackTech Finalist)

Technical Skills

Languages: JavaScript, TypeScript, Java, Python, HTML5, CSS, PHP, C++, C
Front/Backend: React, Redux, SASS, jQuery, JavaFX, Node.js, Express, Flask, MongoDB, MySQL Relational Database
DevOps: Git, Linux, Nginx, LEMP, Docker, CI/CD, GitHub Actions, Jest, Pytest, Google Analytics

Experience

ATB Financial   *Jan 2021 – Apr 2021*
(incoming) Software Development Intern   Vancouver, BC

Major League Hacking (MLH)   *Sep 2020 – Dec 2020*
Open Source Developer, MLH Fellow   Vancouver, BC (remote)
- One of under 200 developers selected out of an application pool of ~10,000 people to contribute to open source projects (Currently working on Facebook's **React Native**) in **JavaScript**

UBC UAS (Unmanned Aircraft Systems Design Team)   *Sep 2019 – Present*
Software Engineer   Vancouver, BC
- Developed a **python flask API** that communicates with the flight controller for the purposes of obtaining telemetry and obstacle avoidance using **docker** and tested with **pytest** for the ground control suite
- Engineered a frontend ground control map/mission control application using **React** hooks and **Redux**
- Wrote technical documentation on various projects in **confluence** to ease onboarding of new recruits

UBC Launchpad   *Sep 2019 – Present*
Software Developer   Vancouver, BC
- Created a realtime leetcode PVP web app with **Node.js**, **React**, and **websockets**. Used Travis for **CI/CD**
- Implemented a **machine vision** body pose estimation model via **TensorFlow** in a React app and engineered an **algorithm** to track limb angles to aid with affordable online physiotherapy

Freelance Software Developer   Jan 2016 – Aug 2019
- Contracted work from various companies, implementing business solutions using **python** and **PHP/MYSQL**
- Created 20+ WordPress websites for various clients. **View my work** at bitboxdesign.ca

Personal Projects more at stuffbyliang.com! feel free to ask about any :)

UBC Courses Search, ubccourses.com | GitHub   *July 2020*
- Created a **React** App that allows users to search my school's courses (better than the official one)
- Collected page & event metrics using **Google Analytics**. Currently 1100+ users with 5000+ searches.
- Hosted using a **Digital Ocean Linux droplet** with **Nginx** for serving, caching & compression

UBC Realtime Course API, api.ubccourses.com | GitHub   *July 2020*
- Actively maintaining a **REST API** server to scrape UBC's courses in realtime using **Typescript**, **Node.js** and **Express**, since our school has no easy to use course searcher or course availability checker
- Wrote a large, **comprehensive test suite** using **Jest**, with **robust documentation** of endpoints
- Increased speed significantly by caching data in a NoSQL **MongoDB** Atlas instance.

BestBuy ArPro Android App, stuffbyliang.com/ar.apk | GitHub   *Feb 2020*
- Developed an **Android Augmented Reality** app for a BestBuy Case Competition in 36 hours and placed 2nd
- Implemented AR features in **Java** using Google's ARCore to view various 3d furniture in your room

Online Tetris Battle, tetris.stuffbyliang.com | GitHub   *Mar 2019*
- Innovated a realtime multiplayer Tetris game from scratch using **HTML Canvas** using **JavaScript**
- Handled realtime networking between players using **Express** and **socket.io**.

Reddit Clone, reddit.stuffbyliang.com | GitHub   *Nov 2018*
- Built a Reddit clone using an **MVC (Model View Controller)** Design Pattern using **Node** and **MongoDB**
- Handled **authentication** using tokens and bcrypt hashing, and designed a real-time chat using **socket.io**

StockGame.ca Investment Simulator, stockgame.ca   *Mar 2016*
- Engineered an investment simulator using **PHP, MySQL relational database** & handled **user authentication.**