

# Brian Hu

613-462-9805 | [blp.hu5@gmail.com](mailto:blp.hu5@gmail.com) | [github.com/BriannHu](https://github.com/BriannHu) | [www.brianhu.ca](http://www.brianhu.ca) | Canadian Citizen (TN Visa)

## EDUCATION

---

### McGill University

*Bachelor of Science in Computer Science*

**CGPA: 4.00/4.00** (Dean's List, Faculty of Science Scholarship)

Montreal, QC

*Sep. 2019 – May 2023E*

## WORK EXPERIENCE

---

### Squarepoint Capital

*Incoming Software Engineer Intern*

- Will be on the **data engineering** team

Sep. 2022 – Dec. 2022

*Montreal, QC*

### DRW Trading Group

*Software Engineer Intern*

- Designed and built internal tool using **Go** to automate network tower reporting through Prontoforms, with **Amazon SQS** and **Faktory**, saving up to 10 hours a week of manual overhead in processing forms
- Extracted RESTful logic from different applications into library to interact with internal API, refactored existing projects to integrate with new library
- Implemented HTTP testing framework in all **Go**-based projects, and achieved over 80% test coverage

May 2022 – Aug. 2022

*Montreal, QC*

### CloudOps

*Full-stack Developer Intern*

- Implemented full-stack features using **Java Springboot** and **Vue.js** of a multi-cloud management SaaS platform, integrating REST APIs of public and private cloud platforms
- Identified database performance issues using **Elastic APM** and **Kibana**, refactored database calls to reduce latency by 70%+
- Created and modified **SQL** tables based on new platform integrations and feature requirements
- Developed unit tests using **Groovy** and **Jest**, and achieved 90% code coverage

Aug. 2021 – Dec. 2021

*Remote*

### McGill Computer Systems Lab

*NSERC Undergraduate Researcher*

- Conducted research project with \$7500 in funding by the **Natural Sciences and Engineering Research Council of Canada**, focusing on **NoSQL** systems design for real-time data analytics
- Developed data analytics benchmark in **C++** to simulate social media workload in RocksDB to identify significant bottlenecks in database performance
- Re-designed and implemented memtable data structures to double read/write performance and overall throughput

Apr. 2021 – Aug. 2021

*Remote*

## PROJECTS

---

### Full Stack Marathon Training App | *React, Redux, MongoDB, Express, Node.js*

- Web application using React.js, Material UI & React-Chart for front-end dashboard
- Implemented authentication (Google OAuth) and state management using Redux
- Allowed creation and saving of runs as well as exporting runs into CSV file using MongoDB, Express & Node.js

### ASL Interpreter | *Python, Mediapipe, OpenCV*

- Python application that converts detected ASL gestures to English Alphabet using OpenCV
- Incorporated Mediapipe library to enable detection and categorization of hand landmarks as distinct ASL gestures

## LEADERSHIP EXPERIENCE

---

### McGill Hack4Impact | *Tech Lead*

- Led a team of 6 developers for Hack4Impact, a club aiming to support local non-profit organizations
- Determined key objectives with project manager to develop an application to track food usage and reduce waste
- Designed mobile first front-end using React and MaterialUI, and back-end using Flask and Postgres

## TECHNICAL SKILLS

---

**Languages:** Java, Python, C/C++, Go, Javascript, R, SQL

**Frameworks:** React, Material-UI, Vue.js, Node.js, Flask, JUnit, Springboot, Groovy, Jest

**Tools:** Git, Jira, Jenkins, Wrike, AWS (EC2, SQS), RocksDB, Unix, Docker