

# Brian Hu

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## Education

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**McGill University** – Montreal, Canada

Exp. Graduation: May 2023

Bachelor of Science, Honors Computer Science, Minor in Statistics

GPA: **4.00 / 4.00**

**Awards:** Dean's List, Faculty of Science Scholarship, MES Bourses d'excellence en sciences, Wing Hing Chan Scholarship in Science

## Experience

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### CloudOps

Aug. 2021 – Present

*Cloud 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
- Improved monetization features such as tax provider configuration and monthly invoice generation
- Developed unit tests using **Groovy** (Java) and **Jest** (Vue.js) with above 90% code coverage
- Completed tasks and key deliverables using Agile development process with **Jira** and **Jenkins** CI/CD pipeline

### Enactus McGill

July 2021 – Oct. 2021

*Web and Software Development Coordinator*

- Coordinated development for front-end of full-stack web application using **React.js** and **Material UI** framework
- Integrated front-end with back-end using **Redux** and **MongoDB** for database management
- Planned for continuation of project with club executives and establishing key design choices for future improvements

### Data-Intensive Storage and Computer Systems Lab, McGill University

Apr. 2021 – Aug. 2021

*NSERC Undergraduate Researcher*

- Research project focusing on NoSQL systems design for real-time data analytics funded by NSERC USRA
- Developed and ran representative data analytics benchmark in **C++** to simulate social media workload using **RocksDB** to identify significant bottlenecks
- Implemented custom string serializer in **C++**, to serialize and de-serialize nested data structures
- Increased read/write performance and overall throughput by over 200% after re-designing memtable value structures

### Computer Science Undergraduate Society

Sept. 2020 – Apr. 2021

*Helpdesk Tutor*

- Provided peer-to-peer tutoring to undergraduate students in virtual setting during online semesters
- Identified areas for improvement and worked towards solutions using **Python**, **Java**, and **C**

## Projects

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### Full Stack Marathon Training App

<https://github.com/BriannHu/MarathonTrainer>

- Web application using **React.js**, **Material UI** & **React-Chart-js2** 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 Alphabet Interpretation App

[https://github.com/BriannHu/ASL\\_Alphabet\\_Interpretation](https://github.com/BriannHu/ASL_Alphabet_Interpretation)

- **Python** application that converts detected ASL gestures to English Alphabet
- Uses **OpenCV** and **Mediapipe** libraries to provide real-time detection of gestures and displays output to screen

## Technical Skills

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**Languages:** Java, Python, C, C++, Javascript/HTML/CSS, OCaml, R, MIPS, SQL

**Frameworks and Libraries:** React.js, Material UI, Node.js, Vue.js, Springboot, Groovy, Jest

**Tools:** Git, Jira, Jenkins, RocksDB, Unix, AWS (EC2), Heroku