

BRIAN FU

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EDUCATION

University of Waterloo

Expected 2029

Bachelor of Computer Science, Co-op

GPA – 3.4

- **Relevant Courses:** Algorithms & Data Abstraction, Software Tools for Development, Functional Programming
- **Involvement:** Computer Science Club, Data Science Club, Chinese Student Association, Hockey Intramurals

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, Typescript, SQL, HTML, CSS

Technologies: Springboot, Node.js, Express.js, Next.js, React, Tailwind CSS, PostgreSQL

Developer Tools: Git, Docker, Jenkins, Postman, Azure, Linux, Firebase – Agile Methodology, SDLC

EXPERIENCE

Software Engineer Intern

May 2025 – Present

Workplace Safety Insurance Board

Toronto, ON

- Collaborated with an engineering team to migrate multiple legacy **Java Springboot** applications to **Microsoft Azure**
- Led the rebranding of 4 eService applications by re-architecting **10+ React** and **Angular** components using **Typescript**, enhancing UI consistency and accessibility, reaching **3000+** daily users
- Designed and tested **5+ REST APIs** for internal microservices with **Spring Boot**, verifying endpoints using **Postman**
- Architected efficient **CRUD** operations for an admin user-filtration features using **Azure SQL**, implementing **MVC** practices to improve code modularity and reduce query response times by **25%**

Software Engineer

Feb 2025 – Present

Private Accountant

Freelance – Remote

- Spearheaded the development of a **CRM** (Customer Relationship Management) system to **100%** digitize client management, saving **25+ hours** annually in manual bookkeeping
- Designed scalable database schema in **PostgreSQL** and modularized backend services following **MVC architecture**
- Developed a responsive and accessible frontend interface using **React** and **Next.js**, enabling dynamic client dashboards, real-time updates, and fast page loads through server-side rendering and optimized component design

PROJECTS

Videofy – Turn PDFs into Videos | *Firebase, Express.js, React, Node.js, Python, GPT-4*



- Engineered a full-stack web application using the **FERN** stack to convert PDF documents into AI-narrated video content
- Developed an automated video generation pipeline integrating **FFmpeg** for dynamic video rendering, **Python** for PDF parsing, and **GPT-4 API** for semantic summarization and AI-driven voiceover
- Tailored user experience using **Firebase Auth** for login and **Firestore** for data persistence

LeetcodePVP – Gamify Interview Prep | *Python, Flask, Typescript, React, Next.js, Tailwind CSS*



- Developed a full-stack web app for **peer-to-peer connection** enabling Leetcode competitions for up to **10** users
- Web-scraped **2000+** Leetcode questions into a parsable **JSON** format using Python's Beautiful Soup library
- Deployed a **Flask** backend on the UWaterloo CSC servers that manages live game states with **RESTful APIs** to communicate with the **React/Next.js** frontend hosted on **Vercel**, ensuring **<50ms** latency real-time interactions

Baseball Management System – Track League Stats | *Java, Swing*



- Developed a desktop application using **Java Swing** to provide an interactive graphical interface for tracking baseball league statistics, including team records and individual performance metrics
- Implemented **OOP Principles** to structure game data, integrating **CRUD Operations** for seamless data entry, retrieval, and modification, ensuring persistent storage using **CSV Files** between sessions

EXTRACURRICULARS

Event Coordinator | Port Credit Storm Hockey Association

Mississauga, ON | Apr. 2022 – Apr. 2024

- Coordinated logistics and operations for large-scale events, including the annual "Trophy Day" celebration for **500+** attendees, increasing participant satisfaction and community involvement by **25%** over 2 years
- Officiated youth hockey games for league of **300+** players, that **20+ NHL players** formerly played in

Interests: Table Tennis, Toronto Maple Leafs, Hockey (2 Province-wide tournament + 3x MHL champion with Port Credit)