Brianna Fan

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Education

McGill University — Montreal, QC
BSc Computer Science - Concentration in Artificial Intelligence, Minor in Statistics — *Aug. 2022 – May 2026*

Technical Skills

Languages: Python, Java, C, SQL, JavaScript/EJS, TypeScript, HTML/CSS, Bash
Libraries/Frameworks: ReactJS, Node.js, Express.js, Flask, Tailwind CSS, jQuery
Developer Tools: Git, VS Code, IntelliJ, Eclipse, Figma

Employment

Functional Analyst Intern — June 2023 – Aug 2023
PSA BDP — *Philadelphia, PA*

- Worked with the **Microsoft Dynamics AX** application, identifying and resolving data storage errors
- Collaborated with finance teams across international locations to address and rectify billing discrepancies found using Dynamics AX
- Assisted in the execution of **SQL** scripts to streamline data updates and facilitate migration to a newer database

Projects

RecipEase — Sep 2023 – Aug 2024

- A personalized recipe recommendation system that utilizes a sentence transformers model and leverages **natural language processing** techniques
- A full-stack **Python** application with **HTML/CSS** for the frontend and **Flask** for the backend
- Utilized a **Kaggle** dataset with **180K+** entries
- Reworked in Aug 2024: Organized file structure and refined frontend design with **Bootstrap**

Pipeline CPU — April 2024

- Designed an instruction RAM, ALU, CU, and data RAM for a CPU that can address up to 8 instructions
- Created the CPU from scratch using only flip flops, logic gates, and multiplexers using **Logisim Evolution**

Platform Game — Jan 2024

- Developed a platform game with **Python** and **Pygame** in collaboration with two teammates for McHacks
- Utilized object oriented programming

Survival Path Finder — Dec 2023

- Utilized elements of graph theory, algorithm design, and data structures to design optimal paths on a 2D grid using **Java**
- Implemented Depth-First Search, Breadth-First Search, weighted graphs, priority queues, and Dijkstra's algorithm

Involvement

McGill Women in Computer Science | *Hackathon Director* — April 2024 – Present

- Working on the executive team to plan the upcoming 2025 McGill Women in Computer Science hackathon

McGill Biomechanics — Nov 2023 – Present

- Working on the frontend with **React.js** for an exoskeleton which would identify and suppress tremors caused by Parkinson's disease using AI
- Contributed **100+ lines** of code to frontend components including a line graph that will display real time data
- Exoskeleton project was accepted into the semi-finals of **Microsoft Imagine Cup**

McGill Artificial Intelligence Society 202 Bootcamp — Sep 2023 – Dec 2023

- Engaged in weekly lectures and completed assignments covering topics such as Decision Trees, Regression, MLP, CNN, RNN, Attention & Transformers, and GANs
- Used **NumPy**, **Matplotlib**, and **PyTorch**

Awards/Certifications

Level 10 Piano Honors | *The Royal Conservatory of Music* — July 2021
3rd Runner Up | *Distinguished Young Women, York* — July 2021