

Mason Leitch

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Education

University of the Fraser Valley

Bachelor of Science, Computing Science

Abbotsford, BC

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- GPA 3.63
- Relevant coursework includes Object Oriented Programming, Data Structures & Algorithms, Database Management, Operating Systems, Natural Language Processing, Functional & Logic Programming

Projects

MapleStory Cash Shop Upcoming Sales Viewer ([Link](#))

[GitHub](#)

- Engineered a dynamic **React** application that retrieves and displays item information from a custom-built API
- Optimized performance by implementing a **Cloudflare worker** with KV storage, resulting in a highly responsive API
- Developed a **Python** script to parse and cross-reference hundreds of XML files, generating comprehensive data for the custom API
- Successfully deployed and maintained a high-traffic site serving over **10,000 monthly active users** using git-integrated **Cloudflare Pages**

Gigabyte Customer Support Chat Bot

[GitHub](#)

- Collaborated with a group of 4 members to train a specialized large language model using NLP concepts
- Researched and implemented emerging NLP concepts such as **QLoRA** fine-tuning using **Python**
- Designed a streamlined workflow for fine-tuning and quantizing large language models, enhancing adaptability to various datasets
- Achieved a **75%** reduction in file size and processing time by fine-tuning and 4-bit quantizing a 7-billion parameter model

Health & Fitness App

- Managed a five-member development team, orchestrating meetings, task allocation, and Git version control
- Designed and developed a comprehensive health & fitness tracking app using **Flutter** for cross-platform compatibility and **Firestore** for robust backend support
- Applied advanced software engineering principles, including use case modeling and domain analysis, to create a well-structured application architecture
- Implemented a login system to allow CRUD operations on the user list and user validation

Command Line Commands REST API

[GitHub](#)

- Developed a comprehensive **REST API** for efficient cataloging and retrieval of CLI commands
- Used **EF Core O/RM** and SQL Server for data storing and access
- Implemented Repository and Dependency Injection design patterns to encapsulate data
- Created CRUD API endpoints and tested them with Postman
- Generated documentation with Swagger and OpenAPI

Skills & Interests

Languages: Java; Python; C; JavaScript; SQL

Developer Tools: Git; Unix; Jupyter Notebooks; Postman **Libraries:**

pandas; React; NumPy; scikit-learn; BeautifulSoup; Selenium; React **Software:**
MS Office

Personal Interests: philosophy; weightlifting; politics; strategy games; piano