

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](#)

- Developed a **React** application to request item information from an API to create a dynamic webpage
- Deployed a **Cloudflare worker** to store item data in a KV storage to build a performant **API**
- Generated data for custom API by parsing and cross-referencing data from hundreds of XML files with **Python**
- Served site to over **1000** daily active users with 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 in **Python**
- Developed workflow of scripts to easily fine-tune and quantize large language models using different datasets
- Fine-tuned and 4-bit quantized a 7-billion parameter model to reduce file size and processing time by **75%**

Health & Fitness App

- Led a team of five members, organizing meetings, delegating tasks, and managing version control with Git
- Built a health & fitness app for tracking exercise and diet using **Flutter** and **Firebase**
- Utilized key software engineering concepts such as use case modeling and domain analysis to model the application
- Implemented a login system to allow CRUD operations on the user list and user validation

Command Line Commands REST API

[GitHub](#)

- Built a **REST API** to help catalog different useful 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; Docker; Postman

Libraries: pandas; React; NumPy; scikit-learn; BeautifulSoup; Selenium; React

Software: MS Office

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