# Mason Leitch

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#### **Education**

#### **University of the Fraser Valley**

Bachelor of Science, Computing Science

Abbotsford, BC January, 2024

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

# **Projects**

## **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 of 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; CSS; SQL

**Developer Tools:** Git; Unix; Jupyter Notebooks; Docker; Postman **Libraries:** pandas; React; NumPy; scikit-learn; BeautifulSoup; Selenium

Software: MS Office

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