# Félix Mainville

## University of Guelph Student, B.CS Computer Science (Co-op)

#### CONTACT



## 226.626.4453



fmainvil@uoguelph.ca



3 Tanser Crt, Chatham ON N7M 6M7



<u>linkedin.com/in/fmainville</u>

#### **TECHNICAL SKILLS**

Languages | 'C', Python, Java, 'R', SQL, HTML, CSS, Rust

Operating Systems | Mac OS X, Linux (Debian, Arch), Windows

Development Tools | VS Code, Cursor, GitHub/GitLab, Docker, Valgrind, Vercel, MariaDB, Azure, Google Cloud

### OTHER SKILLS

**Mathematics** | Algebra, Calculus, Discrete, Statistics

Computer Coding | Problem

Solving, Solution Design, Algorithms

Tutoring | Mathematics, Computer

Science, French

Sports | Golf, Hockey

## LANGUAGES

**French, English |** Fully bilingual in both official languages, oral & written

## Personal Projects

## • Optimal Routing System for a Lawn Care contractor | 2024

- Developed using Python
- Uses Google Cloud API for Geolocation Data & Function Calls
- Uses dynamic information to determine daily route for multiple crews

## Personal Portfolio Website | 2024

- Web Coding with React.js, Next.js, TailWind css deployed on the Vercel platform
- Highlights personal profile, Educational history, academic interests, coding projects

## 2D Battle Game, Python Coding Project | 2022

- Self-guided academic learning project
- The game is set in Shakespeare's "Hamlet". The game involved characters from the play, and the objective of the game was to win 1 v 1 'Street Fighter' style battles.
- The project was a semester game development that allowed a creative approach in the reenactment of the final duel in Shapespeare's play.

## Work Experience

#### **IT Service Technician**

2025 - Present

Municipality of Chatham-Kent

- Replacing hardware (Hardware Lifecycle Replacement Project)
- Providing technical/remote assistance and training to system users
- Installing hardware and peripheral components at various municipal locations
- Performing minor repairs to computer hardware and software

#### **Technical Support (Weekends)**

2022 - 2024

MITC Solutions Inc.

- Diagnosed and resolved hardware and software issues for laptops and computers
- Provided remote assistance to users with desktop applications
- Imaged and configured workstations

## **Lawn Maintenance (Summers)**

2022-2024

JCZ Home & Property Management

#### Landscaper and Labourer (Summers)

2020-2022

JCZ Home & Property Management

#### **AWARDS**

#### **University of Guelph - 2023**

Scholarship offer to Computer Science Programs

**Dean's List** - Year 1, University of Guelph, B.CS Computer Science Program

**ÉSPC** - Business Management Awards Recipient award given to the student with the highest course grade

**Honours List -** High School (Academic track - Gr 12)

## **EDUCATION**

## Bachelor of Computing Honours, Computer Science (Co-op) | 2023-Present

University of Guelph, Guelph, ON

- Completing a minor in Statistics
- Maintaining an 84% average
- Dean's Honour List for Fall 2023, Winter 2024 and Fall 2024 semesters

## **Key Academic Projects**

VCard File Parser (developed in C, Python and SQL) | 2025

- Built shared library files in C to interoperate with Python frontend
- Used Asciimatics Python Library to build intuitive front end
- Followed specific VCF file format requirements and applied debugging tools for functional and memory safe parsing
- Used MariaDB for data storage and queries of contacts and vcf files

Investment Portfolio App (developed in Java) | 2024

- Implemented Object-Oriented concepts for large scale application
- Used hashmap data structures for efficient searching and handling of many investments
- Created a GUI interface to integrate with back-end code while writing proper documentation

Animal Classification Machine Learning Tool (developed in C) | 2023

- Implemented several mathematical measures to measure similarity between data
- Implemented the 'k-Nearest Neighbour' machine learning algorithm with different similarity metrics to classify animals based on specific characteristics

Automobile Database Manager (developed in C) | 2023

- Implemented database management solution using dynamic linked list data structure and Valgrind to manage and detect memory leaks within the program
- Used sorting algorithms to sort cars based on specific properties for each car

### École Secondaire Catholique de Pain Court

Pain Court, ON

- High School Student Sept 2019 June 2023
- Grade 12 Graduate, Honours