MARC-OLIVIER FORTIN

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PROJECTS

Compiler
UWaterloo - CS 241

- Built a compiler for a subset of the C++ language in **C++**
- **Scored 106%** on this final project
- Implemented all stages including Scanning, Parsing, Context Sensitive Analysis, Code Generation and Optimization
- **Ranked top 5** for best optimization in a class of **350+ students**

MindSpace
ConUHacks 2020

- Co-developed a simple workspace tool to **improve** self-reflection and work related stress
- Implemented **Shutterstock's API** to retrieve keyword images
- **Led** user-interface design and front-end development of the **Angular** application

Biquadris
UWaterloo - CS 246

- Co-developed the **Tetris** game with many additional features
- Implemented the program utilizing **object-oriented programming patterns** in **C++**
- **Scored 103%** on this final project by achieving all requirements and implementing **bonus** features

EXPERIENCE

Innovation & Design Developer
Via Rail Canada

📅 January 2020 - April 2020   📍 Montreal, Canada

- **Independently** developed multiple applications to facilitate on-board processes utilizing Microsoft's Power Platform, one which saved the company around **$200,000** per day
- Interacted with **real time data** and managed **large databases** with **SQL Server** to develop the technologies
- Built **insightful scripts** including a quality trip tracking algorithm and security footage analysis using **JavaScript**, **Python** and **Microsoft's cloud-based Computer Vision**
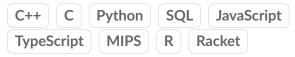
Web Developer
Finlogik (Canaccord Genuity Group Company)

📅 May 2019 – August 2019   📍 Montreal, Canada

- Codeveloped the front-end of an **Angular** based easy-to-use **investment application** for users to manage financial portfolios
- **Independently** developed a user-friendly administrative web application to maintain the previously developed software
- Both applications built **improved the user experience** with Finlogik's products and the speed of operations

SKILLS

Languages:

C++ C Python SQL JavaScript
TypeScript MIPS R Racket

Technologies:

Azure Docker Kubernetes Bash
Git Jira Mac Linux Windows
Angular React MS Power Platform

EDUCATION

Candidate for Bachelor of Honours Computer Science
University of Waterloo

📅 2018 – 2023   📍 Waterloo, Ontario

- **GPA: 3.9/4**
- University of Waterloo Merit Scholarship
- Term Dean's Honours List

Natural Sciences - CEGEP
Collège Jean-de-Brébeuf

📅 2017-2018   📍 Montréal, Québec

- **R Score: 34.696**
- Calculus 1 for Honours Mathematics **(93%)**
- Calculus 2 for Honours Mathematics **(96%)**

LANGUAGES

English ●●●●●
French ●●●●○
Spanish ●●●○○

EXTRACURRICULARS

- University of Waterloo's **Fintech** club (2018-2019)
- University of Waterloo's **Blockchain** club (2018-2019)
- Won **1st** place, outdoor soccer provincial championship - Quebec
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