

# MARC-OLIVIER FORTIN

@ m5fortin@uwaterloo.ca    514-826-9984    in marco-fortin    marcofortin    marcofortin.github.io/personal-website

## 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

### AI Developer

#### Intact Financial Corporation

📅 Sep 2020 - Dec 2020    📍 Montreal, Canada

- Independently developed a Spring Boot application with a Vaadin framework to manage Kafka error messages produced by the team's services in Java
- Restructured and developed the team's testing frameworks and scripted tools to generate large testing data sets using Python
- Mentored teammates with less software development experience and ensured best practices were respected in testing software

### Innovation & Design Developer

#### Via Rail Canada

📅 Jan 2020 - Apr 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

## SKILLS

### Languages:

C++

C

Java

Python

JavaScript

TypeScript

SQL

R

Racket

MIPS

### Technologies:

Azure

Docker

Kubernetes

Kafka

Spring Boot

Bash

Git

Jira

MS

Angular

React

Mac/Linux/Windows

## 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

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French

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Spanish

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## EXTRACURRICULARS

- Peer Leader in the Faculty of Mathematics at the University of Waterloo
- University of Waterloo's Fintech club and Blockchain club (2018-2019)
- Won 1st place, outdoor soccer provincial championship - Quebec
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