Brendan **Marks**

SOFTWARE ENGINEERING · MCGILL UNIVERSITY

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Skills

Programming Languages	Python, Java, C++, JavaScript, SQL, HTML, CSS, TypeScript, C
Tools and Frameworks	Pandas, Scikit-Learn, Flask, Spring, FastAPI, React, Angular, Git

Work Experience

Royal Bank of Canada, GAM   *Toronto, Canada*

QUANTITATIVE DEVELOPER CO-OP   *Jan. 2021 - Aug. 2021*

- Responsible for end-to-end development of a financial report distribution system utilizing Python Notebooks, a FastAPI backend and Angular frontend that was deployed for 3+ investment management teams within the organization and presented to upper management
- Improved microservice performance by 80% through implementation of ETL pipeline and Redis cache
- Worked directly with investment teams to gather requirements, analyze feedback, and provide solutions to improve existing products and workflows

Matrox   *Dorval, Canada*

SOFTWARE DEVELOPMENT INTERN   *May. 2020 - Aug. 2020*

- Developed algorithms using object-oriented C++ to test functionality of an image processing library, increasing product reliability by adding 10+ tests
- Wrote documentation for 4 shape-detection algorithms of 2D images, leading to the creation of a visual debugging tool to aid developers more easily understand algorithms
- Communicated bi-weekly with team to assist with ad-hoc tasks and debugging

Ormuco   *Montreal, Canada*

SOFTWARE DEVELOPMENT INTERN   *Jan. 2019 - Feb. 2020*

- Performed fullstack development of a web application using AngularJS, MySQL, Python, and HTML & CSS in a Linux environment by resolving weekly bugs and adding 5 features to improve user experience and product functionality
- Worked closely with the CEO to implement a virtual machine backup and restoration feature for the company, greatly improving safety of customer data
- Collaborated with a team of 10 in an Agile environment, communicating key project updates during daily stand-up meetings

Extracurricular Activity

COVID QC (covidqc.com)   *Montreal, Canada*

MCGILL UNIVERSITY   *Mar. 2020 - April. 2020*

- Developed an interactive COVID-19 dashboard using ReactJS to show most recent data and statistical insights for Montreal neighbourhoods and the province of Quebec
- Collaborated with 15+ members including interfaculty undergraduates, graduate students, and university professors to add new user functionality such as Tableau and BI components

DPM   *Montreal, Canada*

MCGILL UNIVERSITY   *Sept. 2019 - Dec. 2019*

- Designed and programmed a semi-autonomous robot in Java using the LeJOS EV3 API
- Added algorithms and logic using sensors to follow walls, localize and navigate a grid area
- Implemented multi-threading to maximize efficiency on a low-power processor

Banque Nationale PowerBI Hackathon (3rd Place)   *Montreal, Canada*

BANQUE NATIONALE   *Oct. 2019*

- Worked on resolving a real company's data analysis problem using Microsoft's Power BI data visualization tool.

Education

McGill University   *Montreal, Canada*

SOFTWARE ENGINEERING (BEng)   *Sept. 2018 - May. 2022*

- 3.90 / 4.00 CGPA
- Edgar R. Parkins Entrance Scholarship Recipient for achieving outstanding academics
- Courses in Machine Learning, Software Engineering Principles, Data Structures, Probabilities & Statistics and Computer Hardware