Ryan Marks

Work Experience

Orbcare Inc.

R&D Contractor Software R&D Intern May 2019 - Present Toronto, ON

- Worked on a team that developed Orbcare's medical practice software using Ruby on Rails and Ember JS
- Performed research and production development to integrate clinics' phone systems with Orbcare, reducing call times
- Reduced developer setup time from a day to 20 minutes by dockerizing the application
- Integrated other clinic management systems with Orbcare using OAuth and REST APIs

PortfolioLink

Sole Proprietor Mar. 2017 - Nov. 2017

- Spun off a contract solution for investment portfolio managers into a SAAS business
- Independently developed a complete minimum viable product using Django
- Created Postgres views to derive position data causing a 4x speedup over Python
- Sold intellectual property and code to a customer bringing the software in-house

Innovation Engineer Co-op May 2019 - Aug. 2019

- $\textbf{CIBC Live Labs} \quad \textbf{.} \quad \text{Lead a co-op team in development of a Java}$
 - natural language bot for personal banking
 - Served as developer and Natural Language specialist for all co-op Android team
 - Developed prototype natural language search solution to compete with vendor proposals
 - Collaborated in a Scrum team with story writing, sprint planning, and code review

Intrinsyc Technologies

Software Engineering • Co-op

May 2015 - Jul. 2015

- Developed an Android app that made factory testing of DragonBoard devices 4x faster
- Compiled and flashed Android onto new DragonBoard development platforms
- Implemented a secure update utility in Java for flashing Qualcomm devices

Sunnybrook Research Institute

Focused Ultrasound Research Student Jul. 2014 - Aug. 2014

- Analyzed biomedical signals using MATLAB for an experimental brain imaging modality
- Performed experiments with microbubble solutions and ultrasound transducers
 - Sped up analysis of animal experiments by 10x by developing vision processing scripts

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Education

McMaster University

Bachelor of Engineering Software Engineering Sep. 2014 - Present 3.1/4.0 Equivalent GPA

Expected completion: April 2020

Projects

Anterior EEG Cross-**Frequency Correlation in Preoperative Anxiety**

J. Sriranjan, C. Chow, R. Marks. & L. Schmidt Mar. 2019

Developed signal processing algorithms to isolate EEG activity levels in pediatric surgery patients before surgery to examine anxiety.

Project Julius - Epilepsy Safety Tool

1st Place at Deltahacks Feb. 2015

Project Julius protects people with photosensitive epilepsy from flashing content that could cause a seizure by detecting and blocking it in less than a second. Built using Python and OpenCV.

Curatio - Post-Stroke Physical Therapy

Hack Duke 2014 Nov. 2014

Curatio helps stroke survivors with weakness in one hand. Using the idea of mirror box therapy, a patient wears two gloves, one measures the postioning of the fingers, and the other mirrors it. Built using Arduino.