Will Donaldson

Software Engineer
New Graduate

Cell (705) 543-1625
Email donaldson528@gmail.com
Website http://www.willdonaldson.ca/
LinkedIn www.linkedin.com/in/will-donaldson528

HIGHLIGHTS OF QUALIFICATIONS

- New Graduate from McMaster Software Engineering & Management Co-op program (3.3 GPA).
- 4 Month Engineering Internship at tech startup GymNext.
- 16 Month IT Applications Developer Internship at Honda of Canada Manufacturing.

EDUCATION

McMaster University
Software Engineering & Management (B.Eng.Mgt.)

- Management program pairs a full undergraduate engineering degree with a core business education.
- Combines engineering knowledge with understanding of business, project management, and leadership skills.

WORK EXPERIENCE

GymNext
Engineering Intern **May 2021 – Aug. 2021**

- Designed circuit schematics and fabricated PCB for new battery powered Bluetooth timer.
- Designed and 3D printed PCB enclosure suitable for mass production plastic injection molding.
- Developed embedded firmware in **C** to support new product features.
- Decreased flash memory usage on existing timer products by 87.5% through fixing bug in **C** firmware that caused the number of bits being saved using memory space equal to the same number of bytes.
- Developed software in **Swift** and **Java** to add features to existing iOS and Android apps.

Honda of Canada Manufacturing
IT Applications Development Intern **May 2019 – Sept. 2020**

- Developed, Deployed, and tested full stack **Java** code changes in mass production Honda line control software.
- Continuous integration with multiple factories across Honda North America IT using Git and Agile development.
- Developed a Mitsubishi Unsolicited PLC simulator in **Python** to reduce the cost of end-to-end QA testing by eliminating the need for a physical PLC and PLC operator.

McMaster University
Teaching Assistant **Sept. 2020 – April 2022**

- Winter 2022 (4 Months): Algorithms and Complexity (COMPSCI 3AC3).
- Winter 2021 (4 Months): Software Engineering Practice and Experience (SFWRENG 2XB3).
- Fall 2020 & Fall 2021 (8 Months): Digital Systems and Interfacing (SFWRENG 2DA4)**.**

EXTRACURRICULAR ACTIVITIES/ PROJECTS

McMaster Interdisciplinary Satellite Team (MIST)
Communications Team Firmware Specialist **Sept. 2017 – May 2021**

- Utilized SPI protocol for implementing C1125 RF Transceiver device driver in **C++** to receive and transmit data between STM32 Cortex-M 32-bit microcontrollers using RF signals.
- Developed interrupt handler in **C++** to write data received from C1125 RF Transceiver into flash memory.
- Developed multithreaded application logic in **C++** using FreeRTOS tasks to handle full duplex RF communication and gathering telemetry data using I2C protocol.

McMaster Software Engineering Capstone Project
GroceryGuru Android Application **Sept. 2021 – May 2022**

- Developed **React Native** Android application to manage virtual grocery inventory and shopping list synced with NoSQL cloud database for access from any device where the user is logged in.
- Developed feature for scanning grocery store receipt images to add items to user's virtual inventory efficiently.
- Integrated application with external API to provide recipe suggestions based on items in the user's inventory.