

Will Donaldson

Student

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HIGHLIGHTS

- Enrolled in McMaster Software Engineering & Management Co-op program (Level 4 of 5).
- 16 Month IT Applications Developer Internship at Honda of Canada Manufacturing.
- Communications Firmware Specialist on McMaster Interdisciplinary Satellite Team.

EDUCATION

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

Expected graduation - 2022

McMaster University, Hamilton, ON

- Enrollment in Management option compliments technical studies with core business courses (marketing, accounting, finance).

WORK EXPERIENCE

Teaching Assistant - SFWRENG 2XB3

Jan. 2021 – April 2021

McMaster University

- Course name: Software Engineering Practice and Experience: Binding Theory to Practice.
- Course description: Open-ended design of computational solutions to practical problems that involve both theoretical (algorithmic) analysis and implementation; solving computational problems through an experiential approach; revision and version control.
- Lab TA responsible for explaining concepts and assisting students with lab work done primarily in Python.

Teaching Assistant - SFWRENG 2DA4

Sept. 2020 – Dec. 2020

McMaster University

- Course name: Digital Systems and Interfacing.
- Course description: Memory, binary arithmetic, hierarchical design. Hardware/software co-design and application-specific processors. Interfacing to I/O devices.
- Lab TA responsible for evaluating lab work and assisting students with programming Intel FPGA boards done primarily with Verilog HDL.

IT Applications Development Intern

May 2019 – Sept. 2020

Honda of Canada Manufacturing

- Deployed and tested code changes in Java to production Honda line control and data acquisition software.
- Front end development with Java Swing.
- Backend development with DAO layer using Spring JDBC.
- Created Mitsubishi Unsolicited PLC simulator in Python to facilitate QA testing without the use of a PLC.
- Continuous code integration using Git and Agile development with multiple factories across Honda North America IT.
- Development and support of Restful Web services that support JSON.
- Worked with IBM Web Sphere Application servers.

- Integrated PLCs with IT systems using Telit deviceWISE, Kepware OPC, and Honda proprietary communication software.
 - Provided production support for the various applications and coordinated with cross functional teams.
 - Completed software build testing in QA and Production environments.
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SKILLS

Software

- Skilled with **Python** and **Java**.
 - Fluent with **C/C++**, **VBA**, **JavaScript**, and **React**.
 - **Jira** and **Confluence** for Agile development.
 - **BitBucket** and **GitHub** for version control.
 - **Excel**, **Word**, and **PowerPoint**.
 - **Eclipse IDE** for Java and C++ development.
 - **MySQL** and **IBM DB2** for backend data integration.
 - **AutoCAD Inventor** for 3D Modelling
 - **Altium Designer** for PCB design.
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EXTRACURRICULAR ACTIVITIES/ PROJECTS

Communications Team Firmware Specialist

Sept. 2017 – Present

McMaster Interdisciplinary Satellite Team (MIST)

- NEUtron DOSimetry & Exploration (NEUDOSE) Mission (More info available at: <http://mcmasterneudose.ca/about/>).
- Developing real-time firmware with C++ to run on communications module embedded microcontroller.
- Implementing multiple device drivers and interrupt handlers to support radio communication on the satellite.
- Responsible for designing and implementing multithreaded real-time application logic in C++.