ROBIN MURPHY

Computer/Hardware Engineering Student

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EXPERIENCE

Hardware Developer

CoreAVI

Sept. 2019 – Dec. 2019 Ottawa, Ontario

- Developed skills in hardware design and debugging, using company standards and ensuring designs correspond to VITA standards.
- Debugged CoreAVI graphical processing module
- Created Design Verification and Acceptance Test reports
- Completed hardware level debugging while troubleshooting boot up errors on a Infineon Power Management Integrated Circuit.
- Developed a embedded Excel application to interface a Mentor Graphics bill of materials with ARAS Innovator. Saved CoreAVI an estimated 250,000 dollars.

Project Planning Engineer

Cahill-Ganotec – [The Cahill Group]

Jan 2019 – May 2019 Muskrat Falls, Newfoundland

- Project Management - Job Design and Requirements, Daily tracking of job completion using Microsoft Excel and Kiewit OPS software to calculate worked hours versus estimated hours.
- CAD - Designed Single Line Electrical schematics for electrical power distribution construction.
- Created wireless server for easy submittal of daily time-sheets.
- Performed on-site visits with electrical foreman.

ACHIEVEMENTS

- Skills Canada Newfoundland Gold Medalist in Hardware Electronics
- Team lead for international 1st place winning poster and 3rd place Engineering Presentation at MATE Remotely Operated Vehicle competition

SKILLS

C, C++, C#, Matlab, Windows, Linux	●●●●○
Python, Java	●●●○○
SolidWorks, MasterCAM, 3D Printing	●●●●○
Written and Verbal Communication	●●●●○
Time Management	●●●●●
KiCAD PCB Design	●●●●○
STM32Cube Programmer	●●●○○
Infineon PowIRCenter	●●●●○

EDUCATION

Memorial University of Newfoundland

Bachelor of Computer Engineering

Sept 2017 – Present Co-Operative Program, Class of 2022

HONOURS & AWARDS

- Hockey Newfoundland - Wayne Mercer Memorial Scholarship
- O'Donel High School Technology Award
- Canadian Drone Pilot License

INTERESTS

3D Printing | Drones | Hiking | Robotics | Hardware Design | Arduino/Raspberry Pi | Computer Programming | Hockey

VOLUNTEER WORK

O'Donel High School

- Acting Mentor
- Taught Electronic Assembly and Computer Programming to students.

First Lego League

- Volunteered as judge for youth autonomous Lego robotics competition.

PROJECTS

Single Board Computer - HUD

- ARM Cortex A53 Embedded Processor
- Intel Cyclone IV GX FPGA
- NXP NXh3670 Bluetooth Low Energy controller
- Single Board Computer created with a LS1012A processor connected to an Intel FPGA using PCIe. Computer contains 8GB of RAM, 32GB of internal storage, as well as various sensors and support for USB 3.0 and Bluetooth.
- Created schematic and Printed Circuit Board layout in KiCAD software

Active Noise Cancelling Audio

- Designed and created a Printed Circuit Board to actively noise cancel outside noise
- Programmed using an ARM Cortex-M4 STM32 processor
- Created schematic and Printed Circuit Board layout in KiCAD software

First Technology Underwater ROV

- Developing a underwater remotely operated vehicle for First Technology Association of Newfoundland and OceanQuest
- Remotely Operated Vehicle will be used to display Newfoundland marine life to high school students