Cameron Hartman

LinkedIn: linkedin.com/in/cameronhartman **GitHub:** github.com/CAM-eEng **Portfolio:** https://cam-eeng.github.io/portfolio/

TECHNICAL SKILLS

- **Proficient:** C/C++, Python, SVN, Git, HTML, CSS, VBA, VBScript, EagleCAD, Assembly, Matlab, Spectrum Analyzer, Vector Network Analyzer, Digital Logic Analyzer, Oscilloscope, SPI, I2C, UART, Wifi
- **Exposure:** Django, Java, JavaScript, TypeScript, C#, Markdown, JQuery, Lisp, Bash, SQL, Qt, Apache Commons, XML, MariaDB, MySQL, Docker, Linux, OpenCV, Pillow, REST, CAN, RS232, USB, Ethernet
- **Software:** Trello, Excel, Q-dir, Jira, Confluence, Beyond Compare, Typora
- **Environments:** VS Studio, VS Code, PyCharm, Sublime Text, Terminal

WORK EXPERIENCE

Litepoint | Software (Firmware) Engineer | litepoint.com July 2020 - current

- Design and development of firmware in C++ for nextgen telecommunications test equipment
- Design of Python test scripts for use in debugging and testing products
- Hardware test and debugging of circuit boards, and rf devices (0 - 60 GHz) using Spectrum Analyzer and VNA
- Use of SPI protocol to communicate with product devices including EEPROM, digital attenuators and sensors

MyPitboard Inc. | Hardware Software Design Engineer | mypitboard.com Feb 2020 - July 2020

- Rapid design and development (schematic, layout and physical assembly) of PCBs using EagleCAD.
- Design focus on stability and power efficiency for battery operated platform in harsh environments
- Design and development of a web app using python, Django, React, PostgreSQL, Heroku, and Firebase.
- Interfacing with embedded C code using UART and SPI to retrieve GNSS-GPS data for data analysis

Tetra Tech Inc. | Project Engineer, Team Lead - Electrical | Tiverton, Ontario Jul 2019 - Nov 2019

- Managed project responsibilities by identifying project phases and elements, assigning personnel and resources to phases and elements leading to increased productivity and timeline adherence.
- Prepared project status reports through collecting, analyzing, and summarizing information and trends; recommending actions, which improved communication and timeline adherence.

MC Countermeasures Inc. | Hardware Design Engineer | Kanata, Ontario May 2018 - May 2019

- Use of RS232, USB, Ethernet, I2C, SPI, Wifi and CAN protocols in design of military grade EW/ ECM systems
- Tested rf components, PCBs and other rf systems using Python, C++, C#, Vector Network Analyzer, Spectrum Analyzer, Oscilloscope, and Signal Generator to ensure satisfactory operational status of all products.
- Automated testing of rf devices and systems by developing test scripts in VS Code, using C++, Python, Qt, and microcontroller, improving testing speeds by more than 75%.

EDUCATION

BASc Electrical Engineering, *University of Ottawa* Dec 2018

PROJECT WORK

Testing Interface for RF amplifier | Hardware Engineer 2019

Software program for easy testing and validation of high power amplifiers.

- Developed Qt user interface and python scripts in VS code for operation of testing framework.
- Use of Git and Git Extensions for version control of firmware and software
- Relayed input and output to device under test utilizing Arduino Mega in C++.

Solar Microinverter with Software Phase Lock Loop | Electrical Engineer 2018

Electrical inverter design using embedded software solutions for use in the electrical utility grid.

- Implemented pll software solution using Arduino Uno platform in C++.
- Designed software using Matlab and Arduino and hardware using development boards.
- Facilitated scrum agile methodology, leading meetings and managing hardware-software workflow.