

Riley Cambon

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Website: www.rileycambon.me

EDUCATION

University of Victoria

Bachelor of Engineering

Electrical engineering with a specialization in electronics

Sept. 2013 – April 2019

Victoria, BC

BCIT

2012 Canadian Electrical Code certification course

Feb. 2015 - May 2015

Burnaby, BC

HIGHLIGHT OF TECHNICAL SKILLS

- Experienced with PCB design using Altium Designer
- Familiar with high-speed digital design considerations
- Knowledge of circuit design and PCB layout for EMC
- Experienced with electrical test equipment
- C, C++, embedded systems, Python and MATLAB programming knowledge
- Well versed in the Canadian Electrical Code
- Proficient in AutoCAD drafting

WORK EXPERIENCE

Electrical Designer Co-op

Avigilon

May 2017 – Dec. 2017

Vancouver, BC

- Worked on circuit design and PCB layout using Altium Designer
- Performed circuit debugging and high-speed signal integrity testing
- Conducted product verification and troubleshooting for EMC compliance
- Performed electrical modifications to prototypes and assisted with thermal testing

Co-op Design Engineer

PBX Engineering

May 2016 – Aug. 2016

Victoria, BC

- Provided electrical consulting services for roadway and commercial projects
- Assisted with control systems coordination and planning
- Coordinated with government organizations and clients to verify design requirements
- Created quality management documents for drawing submissions

Electrical Designer/CAD Operator
Roy Campbell Ltd.Sept. 2015 – Dec. 2015
Vancouver, BC

- Applied electrical theory to power distribution design for commercial buildings and projects
- Used AutoCAD for drafting electrical schematics, elevations, and layouts
- Assisted with project coordination and client meetings
- Performed lighting calculations using the simulation software AGI32

PROJECTS

Signalight

A gesture-controlled hand signal illumination wearable device for better hand signaling visibility while cycling. The PCBA was designed and built and includes a microcontroller, 3-axis accelerometer, single button interface, ambient light sensor and lithium battery charger.

Multi-effect DSP guitar pedal

A portable guitar effects pedal with OLED display and user inputs. This Cortex-M4 based PCBA was designed and built, and includes additional SRAM, codec, and lithium battery charger. An algorithmic reverb was implemented on this hardware platform as a proof of concept.

FallSafe

A software defined radio-based fall detection device. FallSafe uses radar doppler shift and machine learning to classify falls for use in elderly care or hospital environments. This system was developed on the ADALM-PLUTO SDR and the machine learning was programmed in MATLAB.

Please visit www.rileycambon.me for additional projects and details

HOBBIES AND INTERESTS

- Reading electronics textbooks and taking things apart
- Product design and prototyping
- Sound recording and song writing
- Triathlons

Clubs and Certifications

UVic AERO
Electrical team

Sept. 2014 – Dec. 2018

Amateur Radio Operator License
Advanced – VA7FLA

Dec. 2016

Canadian Electrical Code Certification

May 2015

REFERENCES

References available upon request.