RYAN WALKER

Roboticist

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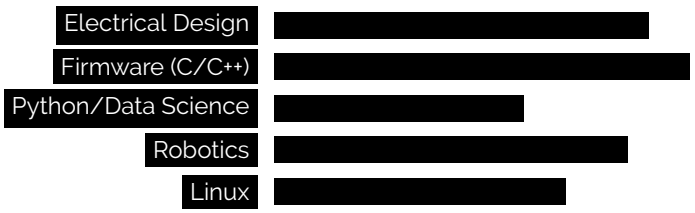
github.com/machine-hum

WHO AM I?

I'm a mission driven technologist striving to build something better than what we have. For the last six years I've been exercising my skills in hardware, software and robotics. My passions lie in Open Source tech, Embedded Systems, Linux, robots and general tinkering.



EXPERIENCE

2015 – Current

Roboticist — **MistyWest**

MistyWest is a full stack research and engineering house. Up to this point I've worked on aquatic life saving devices, polar bear trackers for the WWF, partial sensors, research devices that run current through brains, magnetic field generators, medical devices, fridges to be used in developing countries and several other projects I can't talk about. Typically I work on embedded firmware or electrical design, however if there's ever a robotics project I'll be the first person in line.

2014 – 2015

Control Systems Designer — **MPM Engineering**

MPM Engineering develops 3D scanning systems for lumber automation. My role was to design control systems which enabled the automation of multi-ton machinery.

2013 – 2014

Electromechanical Technologist — **Medico Supplies**

Medico designs 3D scanners and CNC machines for use in the prosthetics industry. I was responsible for designing and testing the embedded compute inside the scanners. I additionally designed the control system for the CNC machines sold.

EDUCATION

2014 – 1/2020
part time

Degree in Electronics Engineering — **British Columbia Institute of Technology**

This degree focuses on advanced electronics and specifically their role in control systems, digital signal processing, filters, and real-time systems. My capstone project is a device for tracking the migration of birds. It uses an STM32F7 and TensorFlow lite to speciate birds with acoustic data. From there, a timeseries heatmap is generated to understand bird hotspots.

2011 – 2013

Diploma in Robotics and Mechatronics — **British Columbia Institute of Technology**

This diploma focused on building a solid foundation in electronics, math and physics before moving into higher level classes, such as robotic application, microcontroller theory and sensor theory. My final project was to design and build a delta robot for use in a pick and place application. This project was sponsored by a local robotics company.

OPEN SOURCE WORK

Modular Synth Work

We design open source modular synths. A modular synth is a synthesizer which resided on a panel with several other synths of same format. They can then be linked together with patch cables to make various sounds.

Worlds: A distributed MMO — **worldsmmo.com**

Worlds is a protocol which manages the large scale economic components of a distributed MMO. This protocol enables fair scaling of a universe based on games developed by independent parties.

OpenSent

OpenSent mines twitter sentiment data on cryptocurrencies to find correlations between price and sentiment.