

EDUCATION

- **The University of British Columbia** Vancouver, CA
Bachelor of Electrical and Computer Engineering; Aug. 2017 – Present.
- **Perimeter institute of Theoretical Physics** Waterloo, CA
Quantum World and Quantum Nature Certification; Nov. 2016 – January. 2017
- **West Vancouver Secondary School** West Vancouver, CA
Completion of the International baccalaureate; Aug. 2014 – June. 2017

EXPERIENCE

- **INETCO Systems ltd.** Burnaby, CA
Junior Software Engineer June 2018 - September 2018

Using the Agile development methodology did the following:

- Successfully migrated batch automated build testing scripts to Python, increasing its configurability and improving its functionality.
- Authored a Slack-Bot in order to control, automatize and show results of build testing output, reducing the build development and testing time.
- Developed analytical custom dashboards using Java, SQL and JavaScript on Jaspersoft Studio for NCR, which output data in half the time previous dashboards did.
- Implemented the installers ability to automatically detect host OS environment, simplifying the installation process.
- Created an Impala testing server on Linux Redhat, using unix and SQL.

- **UBC Orbit** UBC, CA
Senior Controls Engineer Aug 2017 - Present

Senior Member of the UBC Engineering design team UBC Orbit, with the objective to build a fully automated satellite. Part of the Attitude Determination and Control Systems(ADCS) division, where I:

- Implemented the Kalman Filter in C++ and Matlab.
- Implemented the detumbling algorithm with PID and B-Dot controllers for the stabilization of the U-SAT.
- Successfully created and tested code to obtain and analyze output from IMU connected to Micro-controllers.
- Developed and tested the SunSensor micro-controller processor.
- Designed and fabricated custom PCBs for the ADCS division and its components.

- **Bowman Technologies** Vancouver, CA
Software Engineering Intern December 2016 - August 2017

Worked as a Junior Software Engineer Intern for Bowman Technologies;

- Created Excel Sheets using Js to illustrate clients their expenditure to performance ratio using the products offered by Bowman Technologies.
- Performed data entry tasks where I gained knowledge in advanced excel applications.
- Optimized website, in order to facilitate maintenance and reduce loading time.

PROJECTS

- **Alexvazquez.xyz:** Personal Online Portfolio to provide employers a more in-depth interactive CV .
- **Motorcycle Re-do:** Rewired and updated an 1985 bike to function with a new battery, sensors and digital displays.
- **Speedclockmeter:** Turned a digital speedometer into a alarm that connects to your cellphone using a RaspberryPi.
- **Raspberry Pi Cluster:** Using RaspberryPi's built a cluster in order to host my website and store data.

TECHNICAL SKILLS

- **Programming:** C, C++, Python, HTML5 + CSS3, MatLab, SQL, Verilog, L^AT_EX
- **Software:** Matlab + Simulink, Solidworks, Altium, ANSYS, Quartus, STKAg, ModelSim
- **Hardware:** Arduino , Raspberry Pi, STM32, Adafruit IMU's
- **Methodologies:** Agile, Waterfall

AWARDS

- **UBC Physics Olympics** UBC, CA
1st place overall in the UBC high school physics olympics. Dec. 2016.
- **International Baccalaureate** West Vancouver, CA
Award and certificate for Completion of IB Curriculum June. 2017