

## EDUCATION

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Sept. 2015                      **University of British Columbia (UBC), Vancouver**  
- May 2020                      B.Eng. - Computer Engineering, 80.1% average

## TECHNICAL KNOWLEDGE

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**Programming Languages:**            Javascript (Vanilla, Node.js, React Native), SystemVerilog, C/C++, C#, Java, Python  
**Markup/Query Languages:**        HTML, CSS, ColdFusion, SQL, Twig (Drupal)  
**Tools, Frameworks, & Libraries:**    Git, JQuery, ASP.NET w/ Entity Framework, Bootstrap, AJAX, Firebase/Firestore

## TECHNICAL EXPERIENCE

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Oct 2018                      **Software Engineer for UBC BEST (Biomedical Engineering Student Team)**  
- Current                      [University of British Columbia, Vancouver, BC](#)  

- Utilized C# and MATLAB to build an application that collects real-time data from two accelerometers and applies filtering and signal processing to isolate a patient's respiratory rate

May 2018                      **Web Applications Developer for the Canadian Federal Government**  
- Sep. 2018                      [Public Services and Procurement Canada \(PSPC\), Vancouver, BC](#)  

- Built and deployed the Pacific Pilotage Authority website (<http://www.ppa.gc.ca>)
- Built and deployed a survey retrieval API (now used in production: [http://www2.pac.dfo-mpo.gc.ca/avdpth\\_srch-eng.html?page=sdb](http://www2.pac.dfo-mpo.gc.ca/avdpth_srch-eng.html?page=sdb))

May 2017                      **Web Applications Developer & IT Special Projects for the Canadian Federal Government**  
- Sept. 2017                      [Public Services and Procurement Canada \(PSPC\), Vancouver, BC](#)  

- Built a web interface that enables users to update relevant SQL database tables using AJAX and ColdFusion – site is now used in production
- Worked within a team to develop and optimize the "Timeline Tool" project – a web application used to record, display, and schedule Government initiatives on a graphical timeline using the ASP.NET with Entity Framework in the Model-View-Controller (MVC) architectural pattern

## TECHNICAL PROJECTS

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Sep. 2018                      **UBSafe - A Cross Platform Mobile Application**  
- Dec 2018                      [Node.js, React Native, Google Cloud Firestore, Jest, Travis CI](#)  

- Implemented a client-server REST system that allows users to monitor each other's locations in real-time up to a selected destination, and to send location-dependent safety alerts/notifications
- Lead a team of 4 in the completion of requirements definition, architecture design, implementation, testing, and deployment of the application
- Application was ranked 1st place out of 28 competing apps in UBC's Software Engineering course

Jan. 2018                      **Hardware Note Detection of Impure Tones**  
- April 2018                      [C, SystemVerilog, Verilog, VHDL](#)  

- Built a system that performs accurate & fast frequency detection of impure tones using a hardware (FPGA) Fast Fourier Transform (FFT) run on a De1-SoC

March 2017                      **Cereal Monitor – A Smart Pantry Scale**  
- April 2017                      [HTML/CSS, JavaScript, Python/Raspberry Pi, C/Arduino](#)  

- Implemented an Internet of Things application using an Arduino for data collection and a Raspberry Pi as a server to actively monitor and log grocery consumption
- Built an intuitive GUI which utilized JavaScript to retrieve and display python-parsed scale data