

DANIEL WEISBERG

3A Computer Engineering

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Technical Proficiency

Fluent in:	C/C++, Java, C#, Python, MS-SQL
Familiar with:	VHDL, Microsoft Azure (App Service, Machine Learning, Azure DB), NoSQL, Javascript, TypeScript
Platforms:	macOS, Windows, Android, iOS, Arduino, BlackBerry, ARM, NRF51 Series
Experience in:	PCB Design & Manufacturing, Soldering & Reflow, Networking, Agile Development, Unit Testing
Experience with:	KiCAD, Altium, Circuit Design, Tensorflow, Firebase, Unity, Localytics, New Relic, Jira, Confluence, Jenkins

Hardware Experience

2018 Canadian Finalist for Microsoft Imagine Cup Hardware sensors that track person's movement in home and predict health problems related to the movement DanielWeisberg.com/seeme	<ul style="list-style-type: none">• Developed schematic and soldered SMT components for hardware sensors• Interfaced Atmel328 MCU with ultrasonic sensor for distance measurement• Implemented wireless star network for sensors to communicate between each other using 2.4 GHz Radio (NRF24L01)• Enabled central sensor in network to send data to the cloud via GSM module• Selected efficient voltage regulators to power each sensor from 9V battery• Programmed unit in C++
ENVR Velocity Finalist Tactile feedback device for virtual reality headset DanielWeisberg.com/ENVR	<ul style="list-style-type: none">• Worked with NRF51 series processors to develop low cost product with inbuilt Bluetooth Low Energy and ability to control fans, pump and vibration motors• Implemented matching network and high frequency printed antenna in accordance to whitepaper, tested RF signal and adjusted antenna as required• Developed schematic & PCB design using Altium, SMT soldered the board• Programmed unit in C using Keil uVision 5
EzBot Robotics platform with I/O ports for interfaces that was controlled via Bluetooth using a mobile app DanielWeisberg.com/EzBot	<ul style="list-style-type: none">• Used Kicad to create PCB design for the EzBot and assembled/soldered the final printed board• Interfaced Arduino Pro Mini with Bluetooth module (HC-06) for wireless communication with mobile phone• Added voltage regulators for EzBot to accept 5V and 7-12V• Programmed MCU using C++ and Arduino IDE
Coursework (ECE 124, ECE 222, ECE 224, ECE 327)	<ul style="list-style-type: none">• Programmed FPGA using VHDL for laboratories• Studied ADC, DAC, OpAmp, Transistors, Basic Electric components• Worked with oscilloscopes, multimeters, waveform generators

Software Experience

Software Developer Ultimate Software Jan - Apr 2018	<ul style="list-style-type: none">• Created RESTful API using C#, SQL and frontend in Angular 2 for employee CRUD pages• Improved page loading time of content heavy pages by 35% via lighter components and caching• Led 4 person intern team to create playground website for company's custom angular components• Worked with web accessibility expert to make website accessible for blind and visually impaired
Software Developer TribalScale May - Aug 2017	<ul style="list-style-type: none">• Developed for iOS and Android versions of ABC News (5M users) & CBS Radio (400K users)• Used Java and Swift to add video streaming, custom animation & views, Localytics• Implemented mobile network layer using Postman and Charles to monitor endpoints• Addressed issues using Crashlytics to reduce app crash rate by 15% and memory usage by 20%
Mobile Developer VIQ Solutions Sept - Dec 2016	<ul style="list-style-type: none">• Designed and developed iOS (Swift) and Android (Java) version of "VIQ Enconnect" app• Added new features to mobile app including send/receive mail page and video recorder• Implemented RESTful API with ASP.NET Web API required for the new app features• Determined and fixed issue with large videos becoming corrupted when uploaded to server
Fullstack Developer OPTA Information Jan - Apr 2016	<ul style="list-style-type: none">• Implemented New Relic tracking into production server to track stability and resource usage• Developed internal data transfer app in C# that moved JSON data between testing to production• Built file storage website with user authentication to store the documents of 5K clients