

# Aftab Narsimhan

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## Education

### UNIVERSITY OF BRITISH COLUMBIA

Electrical Engineering -  
Biomedical Option

*Expected: May, 2017*

- Dean's List (Year 2)
- Cumulative GPA: 86.2%

## Skills

### PROGRAMMING

Proficient:

- C# • C • Java

Experienced:

- Android • HTML • CSS

Familiar:

- JavaScript • Assembly

### EQUIPMENT

Microcontrollers:

- Atmel • Arduino • Raspberry Pi
- Altera • Smart Servo Motors

Electrical:

- Standard Electrical Equipment
- Surface Mount Soldering

### COMPUTER / SOFTWARE

Programming:

- MS Visual Studio • Atmel Studio
- Android Studio • Eclipse

Electrical Design

- Altium • CircuitMaker

Graphic / Web Design:

- Photoshop • Illustrator • Brackets

Other:

- Git • Perforce • Linux • ROS

## Clubs and Societies

### UBC OPEN ROBOTICS

May, 2014 - Present

### UBC BEST

March, 2014 - March, 2015

## Technical Experience

### KARDIUM INC. | AUTOMATION ENGINEER CO-OP

Sep, 2014 – Sep, 2015 | Burnaby, BC

- Created hardware and software solutions to automate the manufacturing processes involved with building the components of a medical catheter device
- Designed PCBs using Altium, populated them through surface-mount soldering, and tested them using standard electrical tools
- Wrote the drivers for the board using Atmel or Arduino microcontrollers in C
- Created GUI applications that interfaced with the device and many APIs or supporting libraries using C#
- Implemented databases using Microsoft SQL Management Studio and Entity Framework with C# to log data and keep track of calibrations/settings between multiple devices

### TORONTO GENERAL HOSPITAL | VOLUNTEER ENGINEERING CONSULTANT

July, 2013 – Aug, 2013 | Toronto, ON

- Analyzed the Normothermic Ex Vivo Liver Perfusion device being developed in order to simplify its components
- Produced the outline of a new prototype with modifications that would make the device more portable

## Technical Projects

### PATIENT DATA ANDROID APP | VANCOUVER GENERAL HOSPITAL

January, 2016 - Present

- Developing an android app for securely transferring data from a doctor to a patient using an encrypted QR barcode

### SMART FALL DETECTOR | NWHACKS HACKATHON

March, 2015

- Prototyped a smart fall detector for safety of elderly patients in a care-home
- Developed an Android app which relays alerts sent from the fall detector (i.e. Myo armband) by Bluetooth
- Implemented an online database which updates a central web portal in real-time based on data received by the Android app

### ELECTROMAGNETIC TETHER ROBOTS | SOFTWARE LEAD

March, 2014 – April, 2014

- Worked with a group of 6 peers to design, build, program and test an autonomous robot (receiver) that follows another keypad controlled robot (electromagnetic beacon)
- Designed a state machine for the robots and implemented several commands such as parallel park with SPI using Assembly and C