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

Experienced:

• C# • Java

Proficient:

• Android • HTML • CSS

Familiar:

• JavaScript • Assembly

EQUIPMENT

Microcontrollers:

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

Electrical:

• Oscilloscope • Power Supply
• Soldering Iron • Multimeter
• Frequency Generator

COMPUTER / SOFTWARE

Programming:

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

Electrical Design

• Altium • CircuitMaker

Graphic / Web Design:

• Photoshop • Illustrator • WebStorm

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 Research Assistant / 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