# Aftab Narsimhan

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## **Education**

## University of British Columbia

B.A.Sc. - Electrical Engineering September, 2012 - Present

• Expected: May, 2017

• Dean's List (2014 - 2016)

• In-Major GPA: 82.9%

## **Skills**

## **Programming**

Proficient:

• C# • C

Experienced:

· Java / Android · MySQL

Familiar:

• HTML / CSS / JS • VHDL • C++

#### **Software Tools**

#### Programming:

- Visual / Atmel Studio
- Eclipse Android Studio

#### **Electrical Design**

· Altium · CircuitMaker

#### Graphic / Web Design:

• Photoshop • Illustrator • Brackets

## **Hobbies**

- Coding Gaming
- Reading Badminton
- · Learning Languages · Travelling
- Rock Climbing Ultimate Frisbee

## Clubs

## **UBC Open Robotics**

May, 2014 - May, 2015

#### **UBC BEST**

March, 2014 - March, 2015

## **Technical Experience**

## Tesla Motors | Software Engineering Intern

May, 2016 - August, 2016 | Palo Alto, CA

- Aided the development of a new generic test platform for the Model III
  ECUs by creating a C# GUI application with a MySQL back-end for creating
  test plans, parsing and displaying results (which involved upgrading a
  legacy application to run > 100000 times faster through proper indexing),
  and graphing trends across several parameters
- Brought up parts of the Model III ECUs which entailed SMT soldering, analyzing circuits and characterizing behavior using standard electrical equipment, and performing calculations for design adjustments accordingly

## 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 by taking devices from proof of concept to implementation in manufacturing
- Designed/updated PCBs using Altium, wrote the drivers and firmware using C, created C# GUI applications with back-end SQL databases that interfaced with the device, and many APIs or supporting libraries using C#

## **Technical Projects**

EC Turbo-Fan Helicopter (2016) | Team Lead, Control System Lead

- Created a 2-Degree-of-Freedom (DoF) Bluetooth-controlled helicopter with a closed-loop PID control system
- Designed and developed the electronics using Altium, the firmware which
  incorporated a Command Line Interface using C, the software used to
  generate angle/position curves for quickly tuning the control system and
  saving graphs and values from past sessions using C# and SQL, and an
  Android joystick app to wirelessly operate the helicopter

#### **Difficult Intubation App** (2016) | Advisor | Vancouver General Hospital

- Developed a way to modernize a paper-based data transfer process between doctor and patient after intubation procedures, through the use of QR codes, a patient Android app, and a web portal
- Resulted in an article in the Canadian Journal of Anesthesia Publication (*Difficultintubationapp.com: A difficult airway electronic record*) and a first place award for best poster at the UBC Research Day Poster Presentation

#### Smart Fall Detector (2015) | nwHacks Hackathon

 Prototyped a smart fall detection system to alert hospital personnel in the event of an elderly patient falling through the use of an Android app, a Myo armband, an online database (Firebase) and a central web portal