Aftab Narsimhan

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Electrical Engineering

TECHNICAL SKILLS

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| **Electrical Equipment** | **Programming** | **Computer / Software** |
| * Oscilloscope * Microcontroller * Multimeter * Power Supplies * Soldering Iron * Function Generator * PCBs | * C# * C * Java * Android * HTML * CSS * JS | * MS Visual Studio * Atmel Studio * Perforce / Github * Eclipse * Photoshop / Illustrator * Webstorm * Altium / CircuitMaker |

ACADEMIC & CO-OP STATUS

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| **Academic Program** | * Biomedical Electrical Engineering; 4 of 8 academic terms completed * Anticipated date of graduation: May, 2017 |

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| **Co-op Status** | * Completed 3/5 work terms; available for 4 months beginning May, 2016 |

CO-OP WORK EXPERIENCE

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| **Kardium Inc.**  ***Automation Engineer Co-op*** | **September, 2014 – September, 2015** |

* Designed and 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 devices using Atmel or Arduino microcontrollers in C, and the APIs / supporting libraries in C#
* Implemented databases in SQL using Microsoft Entity Framework with C# to log data and keep track of calibrations/settings between multiple devices
* Programmed and tested the final GUI application that interfaces with the device using C#

TECHNICAL PROJECTS

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| **Patient Data Android App**  ***Vancouver General Hospital*** | **September, 2015 – Present** |

* Developing an Android app for securely transferring data from a doctor to a patient using a QR code

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| **Smart Fall Detector**  ***nwHacks Hackathon*** | **September, 2015 – Present** |

* 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 monitored in real-time by hospital personnel based on data received by the Android app

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| **Electromagnetic Tether Robots** | **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 and programmed a state machine for the robots and implemented several commands such as parallel park with SPI using Assembly and C

VOLUNTEER WORK EXPERIENCE

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| **Toronto General Hospital, Toronto, ON**  ***Research Assistant / Engineering Consultant*** | **July, 2013 – August, 2013** |

* Worked meticulously and independently to learn the complex aspects of a portable ex vivo liver perfusion device being developed, within two weeks, to further my understanding of the device and how to simplify its components
* Demonstrated initiative beyond expectation by producing the outline of a new prototype, with modifications that makes the device more portable, earning me a recommendation letter from my supervisor

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| **Agilent Technologies, Santa Clara, CA**  ***QA Intern*** | **July, 2010 – August, 2010** |

* Worked with the R & D Team in the automation and robotics department, classifying and validating up to 20 software defects a day to improve robustness and stability of the Bravo Liquid Handling System
* Learned VWorks automation and the Bravo instrument software independently within a few days and used them for debugging purposes
* Documented and organized findings using an excel spreadsheet and submitted to the supervisor for further functional improvement of the Bravo instrument

EDUCATION

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| **University of British Columbia**  ***Bachelor of Applied Science – Electrical Engineering***   * Dean’s Honour List (2014 – 2015) | **September, 2012 – Present** |

Credits: 86 Cumulative Grade: 86.2%

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| **North Toronto Collegiate Institute**  ***High School Diploma*** | **September, 2009 – June, 2012** |

* Achieved Honour Roll for all 4 years

PROFESSIONAL AFFILIATIONS

**APEGBC Member Advantage Program for Students (MAPs)**

ACTIVITIES AND INTERESTS

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| **Open Robotics**,UBC, Vancouver, BC  ***Software Member*** | **May, 2014 – Present** |

* Working with an interdisciplinary team of engineering, science and business peers to create a personal assistive robot to enter into the RoboCup@Home competition

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| **Biomedical Engineering Student Team**,UBC, Vancouver, BC  ***Software Member*** | **March, 2014 – March, 2015** |

* Worked with a team of engineering peers to build a device to assist musical therapists in their work with rehabilitating stroke patients

**Others**

* Rock climbing
* Soccer, Ultimate Frisbee, Exercising
* Learning languages
* Gaming
* Coding
* Technology that has a huge impact / influence on society
* Reading