

# Muhammad Ammar Raufi

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## EDUCATION

### McGill University

📍 Montreal, Canada

📅 Sep 2012 – Dec 2017

Bachelor of Engineering - Electrical Engineering;  
Minor – Technological Entrepreneurship

## ENGINEERING PROJECTS

### Brain – Computer Interface

📅 Apr 2017

- Designed and developed a system that obtains EEG signal from users, classifies their mental states and drives a 3D game built with Unity 3D

### 1<sup>st</sup> place – Computer Vision Kaggle Competition

📅 Apr 2017

- Achieved 94% accuracy in classifying between cats and dogs in images by using techniques like segmentation, Convolution Neural Networks and traditional classifiers

### Brickbreaker Game using Altera DE1 board

📅 Dec 2016

- Implemented a digital system on the Altera DE1 board, using VHDL to define a circuit that drove a VGA Display to implement a version of the game “Brickbreaker”

### ‘SmartOp’ Android application (Beta phase)

📅 Dec 2016

- Developed an android application that converts speech over the telephone to text and presents it to the user
- Carried out usability testing on users with varying levels of deafness to ensure best possible user experience

### 1<sup>st</sup> position – Robotic competition

📅 Mar 2014

- Led the programming team in programming a robot in Java to complete tasks including localization, navigation, obstacle avoidance and object capture

## MANAGEMENT PROJECTS

### Business Consultant

📅 Apr 2017

- Acted as a consultant to Pasini Research Lab at McGill University to develop a commercialization strategy for a patented product and pitched it to venture capitalists

### Interview with Dollarama CFO

📅 Nov 2014

- Personally interviewed the CFO of Dollarama, Michael Ross and prepared a report on the background and strategic outlook of the company

### ‘Kiwii’ Smartphone application

📅 Dec 2014

- As part of a multidisciplinary team, developed a new product, a smartphone app ‘KIWI’ and presented the business plan to venture capitalists

## RELEVANT WORK EXPERIENCE

### Associate Software Developer

#### TekSystems

📍 Montreal, Canada

📅 May 2017 – Present

- Worked with multiple teams on large-scale software projects for various clients with a focus on producing high quality, scalable and maintainable code

### Research Assistant / Software Developer

#### Sharp Labs - Montreal Neurological Institute

📍 Montreal, Canada

📅 Jan – Apr 2017

- Developed a web application that allowed psychologists to carry out crowd sourced experiments on users, allowing a much greater number of experiment participants

### Software Developer Intern

#### Innoetics Text-To-Speech Solutions

📍 Athens, Greece

📅 May – Aug 2016

- Extended the C++ based Text-to-speech platform for the languages Urdu and Arabic, enabling the company to expand to many new international markets

### Test and Build Automation Intern

#### Autodesk

📍 Montreal, Canada

📅 Jan – Apr 2016

- Responsible for maintaining and improving the continuous integration pipeline to create source code deliveries in an environment of globally distributed design and development

### Process Automation, Controls and Optimization Intern

#### Shell Canada

📍 Fort Saskatchewan, Canada

📅 Jan – Aug 2015

- Led a project to install a wireless communication / fire and gas detection system in a remote building and presented the solution to stakeholders to successfully secure funding

## TECHNICAL SKILLS

**Programming languages/frameworks:** Java, C/C++/C#, Python, .NET, HTML5, CSS, JavaScript, Angular 2-4, JQuery, VHDL

**Design software:** AutoCAD, Maya It, Unity 3D, Altera Quartus

## VOLUNTEER WORK

### Athens refugee camp

📅 Jun 2016

- Volunteered as a food distributor at the Athens refugee camp

### Academic volunteer

📅 Nov 2015

- Assisted nursing students in organizing workshops to increase awareness among the homeless about available resources