

# Intesarul Qayyum Khan

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## EDUCATION

### MCGILL UNIVERSITY

#### BENG IN ELECTRICAL ENGINEERING

Graduated in May 2019

## TECHNICAL SKILLS

### LANGUAGES

•Java •Python •C •Visual Basic  
•MATLAB •VHDL •SQL •HTML •CSS

### SOFTWARE PACKAGES

•Eclipse •MS Office Suite •Altera  
Quartus II •OrCAD •Pspice •Atom  
•AutoCAD •Adobe Photoshop •GIT

### TRAINING & CERTIFICATIONS

Green Belt Six Sigma

## COURSEWORK

### UNDERGRADUATE

Antennas  
Digital Signal Processing  
Electromagnetic Waves  
Digital System Design  
Controls & Robotics Laboratory  
Microelectronics Laboratory  
Introduction to Computer Science  
Machine Learning  
CS50's Introduction to Game  
Development

## EXTRA-CURRICULAR

### MCGILL ROBOTICS

- Part of the communication and perception team which worked on the Mars Rover.  
- Researched and proposed solution for the architecture of the Rover.

### TEACHERS ASSISTANT @ JAGOO FOUNDATION

- Was given responsibility of a class of 20 children in the NGO and taught Basic Calculus & English.

### VP FINANCE @ BSA MCGILL

- Managed the budget of the student association which is catered to McGill Bengali Community.  
- Organized cultural events & used effective promotion strategies to raise popularity.

## EXPERIENCE

### INTERN | PRODUCT SUPPORT

May 2016 – September 2016 | Dhaka, Bangladesh

- Developed key insights and worked with clients on the convenience of Microsoft Azure.
- Worked with the sales team on the Microsoft products.

## ENGINEERING PROJECTS

### MUSICAL SYNTHESIZER Jan 2019 – Apr 2019 | McGill University

-Programmed in C to generate, control and display the wave of a given input on screen (VGA output).  
-Used ARM instructions to specify the timers, memory location and I/O devices of the altera Quartus board (DE1-SoC computer).

### MICRO-ELECTRONICS LABAROTORY Jan 2018 - Apr 2018 | McGill

-Designed an AM Receiver using transistors and circuit building blocks and tested all stages from preamplifier to output stage.  
-Worked in planning,fabricating an analog IC amplifier and tested post fabrication performance.  
-Documented the design process in the laboratory reports.

### CLASSMATE Feb 2018 – May 2018 | McHacks, McGill

-Developed an application on Android studio that enables student to find the perfect Study buddy.  
-Integrated the Google Maps API and set up Google and Facebook Authentication.  
-Used Google firebase as the mainframe Database.  
-Implemented the swiping card algorithm like the Tinder Application.

### WASTE MANAGEMENT SOLUTION Sep 2017 – Apr 2018 |McGill Sustainability office

-Built a real time Real-time Wireless Waste Monitoring system web application.  
-Developed an API for the sensors and synchronized data collection with the MYKO app.

### MIND-CONTROLLED LINE FOLLOWING ROBOT Mar 2016 | Robohacks

-Built a line following robot that activates(start/stop) depending on the frequency of the user's brainwaves/jaw clenches.  
-Collected EEG (electroencephalogram) data using a MuseTM headband.  
-Filtered noise and passed the data through a FFT (Fast Fourier Transform) that was built into the MuseTM headband SDK.  
-Passed the data to a Python script (API developed by IBM) and sent to the robot's Arduino board in real-time.  
-Simultaneously helped my teammates assemble and calibrate the robot which reduced the project time by 25 % helping us finish in less than 24 hours.

### AUTONOMOUS SOCCER PLAYING ROBOT Jan-Apr 16 | McGill

-Programmed in Java and developed an autonomous one-on-one soccer playing robot that can operate in either an offensive or defensive position.  
-Documented the design process and managed the entire project using project management tools like MS Project and Gantt Chart.  
-Presented design progress to a panel of professors & was placed 2nd in the design competition.