# **Mohamed Aly**



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# **Technical Strengths**

### **Programming languages:**

Python (proficient), HTML (competent)

#### **Tools:**

PyCharm, MATLAB, Autodesk Inventor, MS Office (Word, Excel, PowerPoint), Slicer

#### **Operating systems:**

Windows

#### **Interests:**

Telecommunications, Cyber Security, Cloud Computing, 5G Networks, Internet Systems

### Education

#### University of McMaster BASc

Computer Engineering 2019 to Present | Hamilton, ON

#### **Bur Oak Secondary School**

Ontario Secondary School Diploma 2015 to 2019 | Markham, ON

# Awards/Distinctions

Academic Excellence Scholarship Recipient at McMaster University

YRDSB Volleyball All Star 2017-2018

Physics Award for Overall Excellence YRDSB

Volleyball National Bronze Medallist in Calgary

Honour Roll 2015 to 2019

### **Additional Interests**

**Sports:** Volleyball, Geography,

Cartography, Poetry

## **Technical Experience**

### Web Developer | Venom Volleyball

January 2019 to August 2019 | Markham

- Updating website with given information and graphics by request from business owner
- Created a friendly user interface for all audiences
  Maintained customer registration database from online
  entries to usable data using Excel which reduced the time to
  collect data about clients from 2 hours to a few minutes

### ${\bf Delta\ Hacks\ Hackathon\ Participant\ |\ McMaster}$

University January 2020 | Hamilton

- Participated in workshops over a span of two days that included Adobe workshop, Intro to Arduino, and Web Development workshop.
- Brainstormed solutions to real world problems and attempted to solve such problems and implement the solution in the form of an application for users to utilize

### Volunteer/Work Experience

### Freelance Lifeguard/Swim Instructor

July 2018 to Present | GTA

- Founded and operated a personal first aiding and lifeguarding business
- Advertised business and replied to customer requests and questions effectively

### Head Volleyball Coach | Venom Volleyball

November 2018 to August 2019 | Richmond Hill

- Planned and organized practices for volleyball players from different age groups and skill levels
- Communicated with co-workers consistently to maintain an effective working environment

# Relevant Courses / Projects

### Python Programming and Computation | GPA: 4.0

- Utilized python to automate mathematical equations and conversions
- Used **PyCharm** as an IDE to complete given tasks with high efficiency
- Designed an interactive role-playing game that applies essential python skills taught such as conditional loops, classes and objects

#### Engineering Design and Graphics | GPA: 3.9

Utilized **Autodesk Inventor** to design complex mechanical systems Created **simulations** of different mechanical systems to validate designs

Designed, digitally simulated, and 3D printed using **Slicer** a fully functional prosthetic hand with fingers using **Inventor** that is operated using a series of gears and axels.

### **Engineering Professions and Design** | GPA: 3.9

**Designed and constructed** a writing utensil for a client with dystonia, a disability that restricts the ability to write given a set of objectives and constraints

Utilized the **engineering design process** to produce an effective i ing en il ha im o ed he clien abili o write by almost **10 times in effectiveness**