# **Rutvik Sheth**

Computer Engineering

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### **EDUCATION**

# **Bachelors of Computer Engineering**

McMaster University

09/2017 - 04/2022

- Engineering Computation: iteration in python: Grade B+
- Logic Design: Combinational and Sequential circuits,
  Quartus II, Altera Boards.
  Analog and digital design fundamentals.
- Electrical Circuits: designing circuits

### **EXPERIENCE**

### **McMaster Rocketry Team**

McMaster University

06/2018 - Present

Hamilton, Ontario

- Researched various types of launch rails for our Sounding Rocket independently.
- Analyzed and selected best nosecone for a rocket reaching speeds of Mach 0.7 to Mach 1.4. Von Karman Ogive was inputted.
- Designed the rocket's air-frame and nosecone on AutoDesk Inventor 2017

### MAC Formula Electric

McMaster University

11/2017 – 04/2018

Hamilton, Canada

- Learning Failure Mode Effect Analysis for Motor Cooling System.
- Developed strong co-operative skills as well as self-directing skills.
- Designed Radiator, Pump, Pump bracket, Energy meter casing models on SolidWorks

### Mentor/Judge

Mathstronauts - McMaster

01/2018 - 01/2018

- Mentored a team of 6 middle school students to educate the use of wind turbines.
- Explained various concepts and methods which helped them create a prototype with high efficiency.
- Latter evaluated several other teams to award the best prototype.
- Communicated with the team easily and effectively

### **Robotics - First Robotics Competion**

J. Clarke Richardson Collegiate

09/2015 – 06/2017 Ajax, Canada

- Improved leadership and problem-solving skills by leading the Mechanical team of 3
- Developed excellent communication skills by independently securing Lear Corporation sponsorship of \$3000 and mentorship
- Refined my attention to detail by controlling the robot and delivered game-winning performance in the arena
- Lead school robotics team (#5076) to become a finalist in district level competition at Victoria Park event.

### **SOFT SKILLS**



## **PROJECTS**

### Face Identification (09/2018 – Present)

 Learning OpenCV through facial identification program, as well as gaining experience working with cascades, pip, and pillow while keeping a thorough record of each milestone.

### Impact Project (09/2017 – 12/2017)

- Design a device for Cerebral Palsy patient to enable her the independence she desires and make her day to day activity easier.
- Achieved a grade of 90%

### **EXPERTISE**

#### Python

Learned various types of libraries such as datetime, os, shutil and more. Additionally, create a facial identification software with basic machine learning algorithms.

### Java

Created programs in eclipse and netbeans, using classes in same packages and or classes in different packages, encapsulation, and more. Currently learning new concepts and fundamental algorithms

### C/C++

Learning to use new libraries and efficiently implementing distinct algorithms in a program.

### HTML

With basic understanding and research, I created my personal website using downloaded template from Bootstrap. Later, I implemented interesting features for more presentable look.

### Matlab

For math assignments, I use Matlab to create mathematical algorithms to solve complex problems which involve Laplace or Eulers equations. Currently, expanding my understanding of simulations and testing in Matlab

### Inventor

Continuously designing new complex parts for cars, sounding rockets and personal use. Also, tested simulation software provided by Inventor to simulate a geared prosthetic palm.

### Solidworks

Similar to Inventor, I have created many parts according to specifications.

### Microsoft Office

Excellent proficiency in Word, PowerPoint, Excel, Publisher, OneNote

### Programmable Logic Controller

Attended a workshop held by Grantek, where I learned the fundamentals of creating programs.

# **INTERESTS**

