

Rutvik Sheth

Computer Engineering

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EDUCATION

Bachelors of Computer Engineering McMaster University

09/2017 – 04/2022

- Principles of Programming: Python -> harcasades, C -> pointers, java -> linked lists.
- Logic Design: Combinational and Sequential circuits, Quartus II, Altera Boards. Analog and digital design fundamentals.
- Electrical Circuits: Designing circuits using OrCAD software

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 Competition

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

Self-Directed

Dedicated

Quick Learner

Curious

Responsible

Co-operative

Passionate

Leader

Adaptable

Enthusiastic

Creative

Organization

Dependable

Accountable

PROJECTS

Enhancing Face Identification using DSLR Camera (11/2018 – Present)

- Using python library 'gphoto2' to establish connection between Unix system and DSLR features. Currently exploring ways to display live feed from DSLR to Unix.

Face Identification (09/2018 – 10/2018)

- 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

Microsoft Office

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

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 which implements linked lists (singly and doubly)

C

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

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.

Programmable Logic Controller

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