RUTVIK **SHETH**

Hamilton, Canada · 647-708-3267

shethr@mcmaster.ca | linkedin.com/in/rutviksheth1999 | www.rutviksheth.ca

CORE QUALIFICATION

- **Programming:** Python, Java, C, C++, Assembly, HTML, CSS, MATLAB
- **Microsoft Office:** Word, Excel, Publisher, PowerPoint
- **Hardware:** Arduino, Raspberry Pi, Esduino uC, Soldering, Oscilloscope, Analog Discovery 2
- **Design:** AutoDesk Inventor, SolidWorks, OrCAD
- **Other:** Kalman filters, CAN, Bootstrap, Linux, Git, Lightroom, FLASK, ngrok, OpenCV, Web Scraper

EXPERIENCE

HAMILTON, CANADA   **01/2019 – PRESENT**
CO-FOUNDER & INTEGRATION LEAD, MCMASTER HYPERLOOP TEAM

- Successfully contacted two professors to become a part of our team
- Selected 30+ undergraduate/graduate students via interviews
- Researching linear Induction Motors, CAN and Kalman Filters

HAMILTON, CANADA   **06/2018 – PRESENT**
ROCKET STRUCTURE DESIGN, MCMASTER ROCKETRY TEAM

- Documented design-analysis of launch-rails for Sounding Rocket
- Led selection of rocket's nosecone via hand-computation/simulation
- Modeled rocket air-frame & nosecone on AutoDesk Inventor

HAMILTON, CANADA   **10/2017 – 07/2018**
COOLING SYSTEM DESIGNER, MCMASTER FORMULA ELECTRIC

- Modelled case for electromechanical sensor with SolidWorks
- Installed Formula Car parts (e.g. brakes) using Workshop Machinery
- Designed sensitive components (e.g. radiator, pump brackets)

AJAX, CANADA   **09/2015 – 06/2017**
ENGINEEING LEAD, FIRST ROBOTICS – J. CLARKE RICHARDSON COLLEGIATE

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

PROJECTS (FOUND ON GITHUB)

HAMILTON, CANADA   **01/2019**
DELTADRAW FOR DELTAHACKS V

- A mechanized artist robot that draws any image you import (JPG) with a marker on a white board in under 40 minutes
- Used FLASK for testing and developing a local server
- Designed a local tunneling system through NGROK for file transfer
- Tested the viability of a piece of code used to extract etch-a-sketch coordinates through IMAGE PROCESSING

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HAMILTON, CANADA   **01/2019**

WEBSCRAPER FOR STARTERHACKS

- Automated data-extraction (Python Script) of a Student University Account
- Display marks, potential learning curve, current course average, and more

HAMILTON, CANADA   **12/2018**

ENHANCING FACE IDENTIFICATION USING DSLR CAMERA

- Establish a connection between Unix system to access DSLR features
- Currently exploring ways to display live feed from DSLR to Unix

HAMILTON, CANADA   **12/2018**

TWEET SENTIMENT

- Created a small program that asks the users to enter a word, which then return most recent tweets off of Twitter
- Analyzes the sentiment and factual value

HAMILTON, CANADA   **12/2018**

FACE IDENTIFICATION

- Used OpenCV, NumPy & PIL to write a facial identification program
- Detects face, eyes, and smile
- Trains faces, saves them and later uses them to identify and output the name of the person

EDUCATION

HAMILTON, CANADA   **09/2017 – 04/2021**

BACHELORS OF COMPUTER ENGINEEIRNG, MCMASTER UNIVERSITY

- Data Structures, Algorithm and Discrete Math in Java
- Microprocessor, and Electromagnetism
- Logic Design: Combinational and Sequential circuits, Quartus II
- Electrical Circuits: Designing circuits using OrCAD software

ACHIEVEMENT

HAMILTON, CANADA   **01/2019**

3RD PLACE, DELTAHACKS V

- Awarded at McMaster University's annual hackathon with 160 teams