

Saif Fadhel

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Skills

Programming Languages

JAVA, C, PYTHON, HTML/CSS, BOOTSTRAP, JAVASCRIPT, ASSEMBLY (NASM), SQL

Technologies

LATEX, MATLAB, BASH, GDB, ALGORITHMS, DATABASES, VALGRIND, DOXYGEN, GIT

Interpersonal Skills

PROBLEM SOLVING, LEADERSHIP, VERBAL AND WRITTEN COMMUNICATION SKILLS, TEAMWORK

Education

McMaster University

BACHELOR OF ENGINEERING (B.ENG.) IN SOFTWARE ENGINEERING (CO-OP)

Expected Graduation: 2022

Experience

Programming/Lego Robotics Instructor

50 Lockridge Ave, Markham, ON L3R 7R6

SUNNY MANDARIN SCHOOL

June 2018 - August 2018

- Applied my own creative course curriculum to help beginners learn to code and allow more experienced students to enjoy programming freely.
- Developed strong public speaking and leadership skills while teaching students Python, Lego Mind-storms and Scratch.
- There were a total of 28 students who were able to create their own programs in Python successfully after my lessons.

Projects

Fibonacci Fractal Generator

WRITTEN IN C

- Created a program that generates Fibonacci fractals from the number thirty to approximately one hundred within a short time interval.
- Represented and stored fractals as bitmap images in order to preserve high resolution image quality.

Autonomocity - Connecting Autonomous Vehicles

WRITTEN IN PYTHON

- Achieved first place in Delta Hacks VI for creatively using environmental data to connect autonomous vehicles using Innovation Factory's system.
- Trained a Deep Learning Yolo model and used a CNN to identify snow patches to reduce the speed limit of an Autonomous vehicle dynamically.

PPM Image Filter Convolution

WRITTEN IN C

- Developed a program that receives a PPM image as input and applies a kernel filter to it using convolution to produce an output image.
- Included support for many different image processing filters including the mean filter, Gaussian blur filter and the sharpen filter.

Personal Website

WRITTEN IN HTML/CSS

- Developed a website using HTML and CSS from scratch utilizing bootstrap elements and hosted on GitHub at <https://saiffgit.github.io>
- Utilized Adobe Photoshop to create custom image icons to represent projects and added visual animations to them using CSS.

Extracurricular Activity

McMaster AI Club

CORE MEMBER

McMaster University

October 2019 - PRESENT

- Attended various discussion sessions regarding Artificial Intelligence and engaged in Google Colab coding sessions.
- Learned about the mathematical equations used in convolutional neural networks.

Honors & Awards

DELTA-HACKS VI ITE CHALLENGE

2020 **1st Place**, ITE Challenge in Delta-Hacks VI (McMaster's Annual Hackathon)