# Saif Fadhel

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Skills\_

### **Programming Languages**

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

#### **Technologies and Concepts**

GIT, UNITY (2D/3D), ALGORITHMS, DATABASES, LATEX, MATLAB, BASH, DOXYGEN, ANDROID STUDIO, NODE.JS, REACT, AWS

Education

#### **McMaster University**

BACHELOR OF ENGINEERING (B.Eng.) - SOFTWARE ENGINEERING (CO-OP)

September 2017 - April 2022

Experience \_\_\_\_

**Ericsson** 

349 Terry Fox Drive, Ottawa, ON K2K 2V6

5G SOFTWARE TEST DEVELOPER

January 2021 - December 2021

- · Verified the deployment and stability of 4G/5G Network Radio Software on over 50 tracks by applying quality management skills
- Applied a test-driven development approach to create robust test cases and utilized feature test analysis in an agile development team.
- · Designed and deployed automated test scripts for clusters of nodes on Jenkins to monitor the success of builds.

**Projects** 

## Fibonacci Fractal Generator

WRITTEN IN C

- · Created a program that generates Fibonacci fractals from n values of 30 to 100 within a 2 to 20 minute time interval.
- · Stored and represented fractals as bitmap images in order to preserve high resolution image quality.
- · Utilized a user's specified image width, height, and fibonacci fractal start and end points to accurately depict the fractals

#### **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.
- Implemented memory management techniques to allow images with up to 3840x2160 resolutions to be generated in under 3 minutes.

#### **Personal Website**

WRITTEN IN HTML/CSS

- Built a website using HTML and CSS from scratch utilizing bootstrap elements and hosted on GitHub at https://saiffgit.github.io
- Constructed an interactive featured projects section demonstrating the various personal projects that I have previously worked on extensively.
- Used Adobe Photoshop to render custom image icons representing projects and supplied them with visual animations using CSS.

## **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.
- Helped train a Deep Learning Yolo model using a CNN to identify snow patches to reduce the speed limit of an Autonomous vehicle dynamically.
- · Collaborated with team members to follow the Agile Methodology during the project's development

**Extracurricular Activity** 

McMaster AI Club

McMaster University

CORE MEMBER

October 2019 - 2020

- · Attended various tutorial sessions regarding Artificial Intelligence and engaged in Google Colab coding sessions.
- Learned about the mathematics 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)