

Harshil Modi

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SUMMARY

Experience with Python, C/C++, Java, JavaScript, SQL, Dart, Git, React, Node.js, Linux and Unix.
Interested in distributed systems, infrastructure engineering, data science, and back-end development.

EXPERIENCE

Uber

San Francisco, CA

Incoming Software Engineering Intern

May 2020 - Aug 2020

- Joining the Marketplace Engineering team to continue building the core platform for real-time pricing and matching. Tech stack includes Python, Node.js, Go, Java.

Fortran Traffic Systems

Toronto, ON

Full Stack Developer Intern

Apr 2019 - Aug 2019

- Deployed prediction and analysis algorithms under smart traffic initiative to improve traffic flow in Toronto.
- Implemented a web application using Python-Flask and MongoDB for real-time simulation of 50 plus intersections.
- Optimized, refactored, and converted XML files to protocol buffer files leading to a 60% reduction in transfer time.

Languages/Tools: Python, Flask, C++, JavaScript, MongoDB, HTML, CSS, jQuery

Chat Automate (Startup)

Toronto, ON

Software Developer

Nov 2017 - Apr 2019

- Designed and deployed company's first voice recognition chatbot resulting in \$25,000 a year in revenue.
- Built company website using react which directly increased client base by 60% and sponsorship by 20%.
- Developed databases and stored procedures, reports and data entries to Microsoft SQL Server.

Languages/Tools: Python, SQL, TensorFlow, React

SunnyBrook Hospital

Toronto, ON

Software Engineering Intern - Summer Research Student

May 2018 - Aug 2018

- Individually developed software for identifying cancerous cells; Received publication in Biology Open Journal.
- Implemented a cell identification classifier using OpenCV and NLTK with 85% accuracy.
- Automated data analysis and improved processing time by 30%. Scripts still used by the team today.

Languages/Tools: Groovy, Java, OpenCV, NLTK

PROJECTS

Twitter Fake News Tracker

[git.io/Jvq6w](https://github.com/harshilmodi10/Jvq6w)

- Visually depicted tweet and retweet proliferation across 500,000 twitter users using graphing library iGraph.
- Implemented Hybrid Bellman-Ford-Dijkstra's algorithm to improve run time bound by 17%.

Languages/Tools: Java, Python, MongoDB

Image Recreation with Genetics Algorithm

[git.io/Jvq6r](https://github.com/harshilmodi10/Jvq6r)

- Developed algorithm to generate identical images from pixels using the genetic algorithm; achieved 87% accuracy.
- Implemented an exponentially decaying adaptive learning rate to decrease average run time by 12%.

Languages/Tools: C, Bash, iGraph

EDUCATION

McMaster University

Hamilton, ON

Bachelor of Engineering in Software and Biomedical; GPA: 3.96/4.0 (11.7/12)

Sep 2017 - Apr 2022

- Courses:** Data Structures & Algorithms, Databases, Software Project Management, Computer Architecture
- Activities:** AI Society, Competitive Programming Club, Hack the North (University of Waterloo)
- Awards:** Computer Science Excellence in Problem Solving Award, Motorola Software Engineering Scholarship, Aspiring Engineer Scholarship, McMaster University President's Award, Pollock Family Academic Scholarship