MALHAR SHAH

Fourth Year Computer Engineering Student
Expected Graduation: May 2023

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WORK EXPERIENCE

IBM *May 2021 – April 2023*
Backend Developer Intern

- Developed and maintained internal developer tools/applications used by **300+** WebSphere Application Server (WAS) **engineers**
- Deployed **Docker** containerized WAS applications on Red Hat **OpenShift cluster** and tracked availability to **reduce downtime**
- Migrated **microservices** to **Kubernetes cluster** for **efficient container orchestration** and management
- Implemented a **computer vision** hand gesture recognition system to control a rover using **OpenCV** with **> 90% accuracy**
- Represented IBM at a Java developer conference, DevNexus
- Resolved bugs, defects and issues using **Java** and **Python**

MeshMD Inc *May 2020 – August 2020*
Software Quality Assurance Intern

- Designed and executed **> 500 test cases**, procedures, and test plans for systematic **Web Application Testing**
- Tracked workflow issues and **resolved > 200 defects** using automated testing with **Java**, **Selenium**, and **TestNG**

SOFTWARE PROJECTS

Speech Evaluation Web Application
Python, Flask, JavaScript, React

- Utilized a **generative NLP model** and image & audio processing tools to analyze speech metrics and provide personalized actionable feedback for improving the presentation
- Instituted **topic extraction** and abstractive **content summarization** with a **75% success rate** via Cohere's **semantic search model** to gather key ideas and detect improper speech patterns
- Implemented eye tracking and **sentiment analysis** capabilities with **> 81% accuracy** via **TensorFlow** to measure engagement levels

Fraudulent Transaction Detection Web Application
Python, Flask, HTML, CSS, Bootstrap

- Trained ML model via **scikit-learn library** to **detect** potentially fraudulent transactions with **> 85% accuracy** using a public dataset of user's previous banking history
- Stored existing user transactions in a **MongoDB database** and collected new verified transactions to improve the model

Vaccine Distribution Prioritization Tool
Python, JavaScript, Node, Express, React

- Processed patient's health data utilizing **Pandas** and **Sklearn** to sort patient's priority to receive vaccination based on their risk levels with an **86% accuracy**
- Initiated and deployed a live database via **Dropbase API** and set up communication with patients via **Vonage API**

EDUCATION

University of Toronto *2018 - 2023*
B.A.Sc. in Computer Engineering
Minor in Artificial Intelligence

***Relevant Coursework**: Software Engineering, Operating Systems, Computer Security, Computer Networks, Intro. to Machine Learning, AI Fundamentals, Data Structures & Algorithms, Databases*

SKILLS

Languages
Java, C++/C, Python, JavaScript

Frameworks/ Databases
Flask, TensorFlow, PyTorch, Scikit-learn, MongoDB, SQL, React, Bootstrap

Technology/Tools
Git, Docker, Kubernetes, Selenium, Android Studio, GDB, TestNG

AWARDS

Hack the North 2020++ *2021*
Vonage API Challenge

DeltaHacks VI *2020*
Best Finance Hack

Hack the North 2019 *2019*
SurveyMonkey's API Challenge

Engineering Faculty *2018*
Scholarship – $5000

LEADERSHIP

University of Toronto Machine Intelligence Student Team *2019 – 2020*
External Associate

Volunteer Engineering Experience Program *2018 – 2019*
Project Management Team Member

INTERESTS

Playing and watching soccer & basketball
Travelling and exploring the world