

# VAKULABHARANAM SOUJAN

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## EDUCATION

### University at Buffalo, New York

**2022-2023**

- Masters in Data Science & Applications.

CGPA : 3.91/4.0

### Mahatma Gandhi Institute of Technology, Hyderabad, India

**2018-2022**

- BTech in Computer Science and Engineering.

CGPA: 7.86 /10

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## EXPERIENCE

### Jr Software Engineer Intern

### Analinear Imaging Systems

**March 2022 - June 2022**

- Creating website layout/user interfaces by standard HTML/CSS practices.
- Integrated the data from various back-end services and databases.
- Worked on Image processing algorithms.

### Machine Learning Intern

### Indian Servers

**May 2021 - July 2021**

- Used libraries like numpy, pandas, keras, scikit-learn, tensorflow in Python Programming .
- Worked on Real-world problems related to Machine Learning in Health Care.
- Completed Internship project on “Detecting Pneumonia from X-rays using Deep Learning”.

### Volunteer

### QUBIT20

**13th march, 2020**

- Served as a volunteer for pseudocode program for the QUBIT20, CSE Department TechnicalFest, in Mahatma Gandhi Institute of Technology on 13th March 2020.

### Volunteer

### STREET CAUSE

**2018-2022**

- Worked as a Street Cause President and served as a volunteer in Street cause at Mahatma Gandhi Institute of Technology.
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## RESEARCH PAPER AND PUBLICATIONS

- Mouse Simulation System using convex hull algorithm, June 2022

Journal: International Journal for Modern Trends in Science and Technology, Volume 8, Special Issue 8 (Status: Published)

Link: <http://www.ijmtst.com/vol8sio8.html>

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## PROJECTS

### Detecting Pneumonia from X-rays using Deep Learning

- It detects people who are suffering with pneumonia with help of X-ray images. This system uses the Convolutional Neural Network algorithm (VGG16 model) for Pneumonia from X-rays. This project will simplify work of doctors and radiologists and provides high accuracy results of identifying pneumonia.
- Tech Stack - Python, tensorflow, keras, numpy, pandas, sklearn, matplotlib.

## Mouse Simulation System Using Opencv

- This project is performs all the functions performed by your mouse corresponding to your hand movements and gestures. In this system mouse can be controlled by using real time camera. Thorough a web camera, the real time video is captured. Image processing is performed on each frame of the video to detect the mouse tasks that are to be performed.
- Tech Stack: OpenCV, Google Collab, PyAutoGUI.

## Face Mask Detection System

- This system classifies the people with a face mask and without face mask. If a person who doesn't have a mask the system will identify it and produces the alarm. This system work with system camera to capture and along with innovative neural network algorithms to check whether person has worn a face mask or not.
- Tech stack: Opencv, jupyter notebook, imutils, matplotlib, tensorflow.

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## TECHNICAL SKILLS

**Programming Languages:** C, C++, Java, Python

**Web Technologies:** HTML, PHP, JavaScript, JSP, XML, jQuery, MVC

**Data Science:** Standard ML Algorithms, Neural Networks, Machine Learning, Deep Learning

**Databases:** MySQL, Oracle

**Python Modules:** NumPy, Pandas, Matplotlib, OpenCV, Sklearn

**Notebooks:** Jupyter Notebook, Google Colab

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## CERTIFICATIONS

- **Java Courses**-1. Java Programming, 2. Java Fundamentals, 3. Java Foundations from **Oracle**.
- Participated and attended the workshops on Cyber Security, Internet Of Things held in our college campus.
- Certified by Stanford University **Machine Learning** course in **Coursera**.
- Certificate Of Completion in **Python language** from **Bits and Bytes Computer Center**.
- **Data Science for Engineers** Certificate from **Nptel**.
- **Cyber Security courses** - 1. Introduction to Cybersecurity, 2. Introduction to Packet Tracers, 3. Cybersecurity essentials from **Cisco**.
- **Python for everybody (Specialization)**- 1. Programming for Everybody (Getting Started with Python), 2. Python Data Structures, 3. Python to Access Web Data, 4. Databases with Python, 5. Capstone: Retrieving, Processing, and Visualizing Data with Python from **University Of Michigan** in **Coursera**.