OM RASTOGI





ABOUT ME

A machine learning enthusiast with background in Electronics and Communication. In past I have worked on several automation projects in embedded systems and IoT, I am working to create intelligent solutions with Machine Learning and Data Science.

ACADEMIC QUALIFICATION

Qualifications	Institute	Year	Result
BTech. in Electronics and Communication	JSS Academy of Technical Education	May 2021	7.0 CGPA
Senior Secondary School Education (CBSE)	Amity International School	May 2016	82 %
High School Education (CBSE)	Amity International School	May 2014	10 CGPA

EXPERIENCE

CyberCure Technologies - Dec 2020 to Present

Machine Learning Intern

Working on a sale prediction problem. Creating an end-to-end solution for analytics of sales

Arcturus Business Solutions - Sept 2019 to Jan 2020

Intern

- Worked on upgradation of already existing AI-based Solution
- The work was mainly based on Python's PyQt5 framework and SQL
- Incorporated a statistical dashboard in the software

Central Electronics Limited - Jun 2018 to July 2018

Intern

- Worked in Quality Check of System Production Department. Training in the following:
- Digital Axle Counter Solar Panels Microwave Electronics

SKILLS

Embedded System: Arduino • Atmega2560 MCU

Python: OpenCV • PyQt5 • Matplotlib • Scipy

Backend: Django • Flask • Dash

Data Science: Numpy • Pandas • Seaborn • Plotly

Machine Learning: Scikit Learn

Deep Learning: TensorFlow and Keras **Other:** HTML • PHP • SQL (Beginner)



KEY PROJECTS

Chat Bot 🖸

An initiative to change the way we perceive automated chat systems. Creating interactive intelligent ChatBot. Creating the whole web app from scratch using python and javascript. The plan is to use state-of-art language models like BERT and GPT.

Whatsapp Chat Analysis 🗹

A detailed chat analysis of a person to measure connections and individual character of the participants, using python Data Science Framework. The following features were analyzed -

- Emojis Media Sent Message Delete Frequently used Words
- Activity pattern through time and days Choice of Words

Lane Detection System

An attempt to Identification of lane with image processing algorithms with Python's OpenCv library in a video(Dubai Roads). The algorithm was based on edge detection and color masking techniques.

- The algorithm was successfully able to detect lane of car in initial frames. There were certain limitations.
- To solve this problem, I developed a variable color masking systems which is pending to published.

Instrument Identification System 🗹

Algorithm inputs a monotone sound and outputs onset, note and instrument used to play the sound. This system is made on Python's libraries - Numpy, SciPy and Sklean. Features of this project are -

• Sound Processing • Identification of Note • Identification of Instrument using machine learning(SVM)

Automatic Flushing System 🗹

Designed a flushing system for ill people, with Arduino, ultrasonic sensor and a servo motor.

- The hardware design is very heap and can be deployed in any household facility.
- The MCU code is designed to optimize sanitation, with minimal number of flushes.

RELEVANT COURSES

B.Tech - Digital Signal Processing, Digital Logic Design, Data Structure And Algorithms, Micro Controllers, Discrete Mathematics

Coursera - Machine Learning [Stanford University], Applied Machine Learning in Python [University Of Michigan], Data Analysis With Python [IBM], Deep Learning Specialization [deeplearning.ai]

MIT OpenCourseWare - 18.06 Linear Algebra [Gilbert Strang]
Harward OpenCourseWare - Statistics 110: Probability [Joe Blitzstein]
UCF CRCV - Computer Vision [Mubarak Shah]

POSITION OF RESPONSIBILITY

Quanta, JSSATE

Creative Head(Feb 2018 - Present)

At Quanta we organize at least two workshops every year. These workshops aim to help students to create electronics

Entrepreneur Development Cell, JSSATE

Global Business Partner(Dec 2018 - Present)

At EDC we conduct events to encourage student to think of innovative ideas and lead them toward entrepreneurship.