OM RASTOGI

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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, now I am working to create intelligent solutions with Machine Learning and Data Science.
I am fast learning person, who yearns to create solutions in all aspect of industry for better life and better society at large. I share innovative ideas, solutions and projects on medium, also I like to share data pattern insights in kaggle notebooks.

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

Jan 2020

CyberCure Technologies
Trainer
• I conducted a two days workshop on Embedded system and Robotics at NIT Kozhikode.

Sept 2019
Jan 2020

Arcturus Business Solutions
Intern
• Led an 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

Jun 2018
Jul 2018

Central Electronics Limited
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

Data Science: Numpy • Pandas • Seaborn • Plotly

Machine Learning: Scikit Learn

Deep Learning: TensorFlow and Keras

Other: HTML • PHP • SQL (Beginner)

PROJECTS

Chat Bot

Creating interactive intelligent Chat Bot with active integration feature for almost any website. Technical Stack used here –
• Python • Java Script • HTML5 • CSS • Bootstrap
• Flask • Keras • Ajax • Web Socket • NLTK

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 • Identificaion 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
Member (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
Member (Dec 2018 - Present)
At EDC we conduct events to encourage student to think of innovative ideas and lead them toward entrepreneurship.