OM RASTOGI

STUDENT

omrastogi@gmail.com
github.com/omrastogi
medium.com/@omrastogi
kaggle.com/omrastogi

ABOUT ME

I find interest in Machine Learning while I have a background in Electronics and Communication. I write articles on medium sharing ideas, solutions and projects. I also like to make notebooks on Kaggle to find interesting patterns in different datasets.

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 delivered a two days workshop on Embedded system and Robotics at **NIT Kozhikode**.

Sept 2019 – Jan 2020 **Arcturus Business Solutions**
Intern
• Edit and upgrade of already existing GUI for an Intelligent Surveillance Solution.
• The work was mainly based on Python's PyQt5 framework and SQL
• Added New Features on existing system.
• 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

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.