

## NAGRAJ VENKATESHAM VALLAKATI

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### ACADEMIC QUALIFICATION

**Bachelor of Engineering (Information Technology);** Pursuing (Since Jul 2017)

K.J. Somaiya Institute of Engineering and Technology, Mumbai University, Mumbai, Maharashtra, India

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### INTERNSHIPS

**MindScript;** Dec 2019 to Jan 2020

*Intern - Android Application Development*

- Built an application consisting of two parts - News and Videos. The news section news is fetched from the API and displayed accordingly. The video section includes the YouTube SDK integration that was used to add videos with the unique video id of every YouTube video and accordingly play them.
- Learned about the project development life cycle.

**Lets Grow More;** Sept 2021 to Oct 2021

*Intern – Data Science*

- Image to Pencil Sketch using Python : Reading the image in RGB format and then convert it to a grayscale image using cv2 library in Python.
- Exploratory Data Analysis on Terrorism Dataset : Finding out the hot zone of terrorism.

**The Spark Foundation;** Jun 2021 to Jul 2021

*Intern – Data Science and Business Analytics*

- Prediction using Supervised ML : Predicting the percentage of a student based on the no. of study hours using Linear Regression.
  - Prediction using Unsupervised ML : Predicting the optimum number of clusters and represent it visually from the given 'Iris' dataset.
  - Prediction using Decision Tree Algorithm : Creating a Decision Tree Classifier and visualizing it graphically, if we feed any new data to this classifier, it would be able to predict the right class accordingly.
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### ACADEMIC PROJECTS

**Smart Farming using IoT and AI;** Jun 2020 – Jul 2021

This project focuses on the measurement of physical parameters such as type of soil, irrigated, or non-irrigated land using IoT with the help of sensors. The data collected from the sensors will be monitored and further, the farmers will be able to know which crop is in demand, the availability of fertilizers and insecticides for that crop, climatic conditions using AI. Further, using IoT, the system will provide automated maintenance of humidity/water level and automated maintenance of the fertility of the soil.

**Data Analysis on Aadhar Dataset;** Jan 2021 – Jul 2021

The data set included information about which enrolment center was used by which enrolment agency, the district, and the Aadhar user's details, among other things. By using Python and Flask data analysis, visualizing the data, and presenting it on a dashboard was done. This project aids government officials in determining if a new enrolling center is needed in a certain district or whether an existing enrolment center should be closed if there are insufficient enrolments.

**Text Processing and Sentiment Analysis of Twitter Data;** Jan 2021 – Jul 2021

This project focuses mainly on sentiment analysis of twitter data which is helpful to analyse the information in the tweets where opinions are highly unstructured, heterogeneous and are either positive or negative, or neutral in some cases. A wordcloud was created for each set of analysis.

**Student Information Management System (SIMS);** Since Jun 2019

This is a platform used by the KJSIEIT IT department for conduction of daily operations like attendance, marks of students. It has multiple logins for Student, Faculty, and Parents. It also features a mentor system for a group of students.

- Learned web development.

### **IoT based Attendance Monitoring using RFID Sensor; Jun 2019 – Dec 2019**

- Used an RFID scanner to mark the attendance of the students and ultrasonic sensors to keep track of students entering and exiting the classroom.
  - Learned the concepts and applications of IoT.
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### **ADDITIONAL**

#### *Tools & Techniques:*

- Database: SQL Server
- Applications: NetBeans, Bootstrap, MS Office, Visual Studio Code, Android Studio, AutoCAD, Ubuntu Terminal.
- Web Development [Front-end], Android Development, C Language, Java, Python, Data Structures, Machine Learning [Basic].

#### *Workshops Attended:*

- Attended the following workshops:
  - Online Workshop on LaTeX software at KJSIEIT IEEE on 18 May 2020
  - Blockchain Boot camp using Ethereum, Solidity and JavaScript at KJSIEIT IETE in Mar 2019.
  - Git, Competitive Programming and Data Science at KJSIEIT IET in Feb 2019.

#### *Workshops Conducted:*

- Conducted the below workshops:
  - Workshop of Level 1 and Level 2 Robotics under Institute of Electrical and Electronics Engineers at K. J. Somaiya Institute of Engineering and Information Technology in Sep 2018.

#### *Trainings:*

- Completed a training on email automation and data scrapping from various websites and screen scrapping from Robonomics AI in Jun 2019.

#### *Position of Responsibility:*

- Admin of Institute of Electrical and Electronics Engineers (IEEE) since Jun 2019 and during Jun 2018 to May 2019.
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