



# Renuka Ramasamy

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## Education

### B.E (Computer Science and Engineering)

University College of Engineering (BIT Campus), Tiruchirappalli, Tamil Nadu, India.  
August 2019 - June 2023  
CGPA : 8.08 / 10

### High School

Cheran Matric Hr. Sec School, Tamil Nadu, India.  
June 2017 - March 2019  
Marks : 81.33 %  
Grade 10  
Cheran Matric Hr. Sec School, Tamil Nadu, India.

June 2016 - March 2017  
Marks : 93.8 %

## Skills

**Technical Skills:** Python, HTML, CSS.

**Software:** Roboflow app, CVAT, Visual

Studio, Pycharm, Google Colab.

## Research Interests

Machine Learning, Deep Learning, NLP, Computer Vision, Human-Robot interaction, Generative AI.

## Certificates

- Online Machine Learning course in Simplilearn (11Feb 2024).
- IBM “ A Novel based on hand digit recognition system (28 Feb 2023).
- Workshop “Hands-on training using Android Application Development” (Feb 2020).
- Internship Certificate for AI to detect Criminal Vehicle using License Plate Number (2024).

## Research Papers

- A Multi-Model Approach- Stress Detection using Physiological Signals with LSTM and XGBoost Journal of Artificial Intelligence 2024 (Under Review)
- The Multiple Approaches for Drug-Drug Interaction Extraction using Machine learning and transformer-based Model. IEEE Access 2024 (Under Review)

## Project Experience

### Facial Emotion detection using Deep learning(Aug-Nov 2022)

This project is focused on recognizing different facial emotion in real-time(such as Happy, Sad, Neutral, Surprise, Disgust, Fear, Angry), In this Model we used the Haar cascade Algorithm for detecting facial features, CNN for feature extraction,SVM for Image classification with keras and Tensorflow frameworks.

**Technologies used:** Natural language processing, web scraping.

### Crop and fertilizer Recommendation System: ( Feb- May 2023)

An end-to-end user friendly model developed to help farmers to identify which crop can give a better yield based on features like N, P and K values rtitizer content present in the soil, soil type, pH value and rainfall in that region, state, and city. Also recommending the best fertilizer for every particular crop. We additionally add plant leaf disease prediction with suggestions on to cure a disease

**Technologies used:** Web Page, Random Forest, Convolutional Neural Networks (CNN)

### A novel method for hand written digit recognition system(Aug - Nov 2022)

This model is developed for recognition of postal code or zip code that can be employed in mail sorting. CNN were used to recognize and classify the handwritten digits from the images.

**Technologies used:** Web page, CNN

### Online voting system (Aug - Dec 2021)

Designed a friendly User interface for online voting system using Eclipse. Entering Data's are stored in MySQL database these two were connected using PHP connection.

**Technologies used :** PHP, Java and XAMPP control panel

## Internship

- AI to detect Criminal Vehicle using License Plate under the Supervision of The Korean Academy (2024).
- Java Full Stack Development Internship (1 July - 31 July 2024) under Eazy Bytes.

## Extracurricular Activities

- Participated in 600m running and volley ball competition(District level)
- Participated in Sports day marchpast and led a team by being an Right Marker.
- Led a National Level Symposium