

APRAJITA



Education

Vellore Institute of Technology, Bhopal

B.Tech – Computer Science & Engineering

2022 - 2026

CGPA - 7.99

Technical Skills

Languages & Frameworks: Java, Python, JavaScript, HTML5, CSS3, TensorFlow, OpenCV, MediaPipe

Databases: MySQL

Specializations: Web Development, Machine Learning, Deep Learning (LSTM), Computer Vision, Gesture Recognition, Assistive Technology.

Experience

Tata Motors Limited, Jamshedpur

Dec'24 – Jan'25

Machine Learning Intern

- Developed a deep learning model using TensorFlow to predict used car prices based on features like age, mileage, fuel type, and power.
- Deployed the model with a Flask API and integrated it into a front-end form for real-time predictions via JavaScript.
- Preprocessed structured data, engineered relevant features, and optimized model performance through evaluation and Tuning
- Built a responsive HTML interface to collect user input and display predicted prices dynamically.

Projects

Smart Recipe App

- Built a responsive recipe search app with category filters, modals, and YouTube integration using TheMealDB API.
- Implemented secure login/signup with Firebase Authentication and stored user-specific favorites in Firestore.
- Deployed live on Firebase Hosting with persistent state handling and session-aware UI updates.
- Designed an intuitive UI with dynamic DOM manipulation, error handling, and mobile responsiveness.

Sign Language Detection using LSTM

- Designed and trained an LSTM-based neural network for real-time sign language gesture recognition using sequential video frame data.
- Implemented a complete data pipeline using OpenCV and MediaPipe for keypoint extraction, frame normalization, and preprocessing.
- Optimized model accuracy through hyperparameter tuning and experimentation with stacked LSTM architectures.
- Aimed for deployment in assistive communication systems to support hearing and speech-impaired users through real-time gesture-to-text translation.

Extracurriculars

Data Science Club, VIT Bhopal

Aug 2023 – Present

Core Member, HR Team

- Led recruitment drives, increasing membership by 30%; implemented data-driven collaboration strategies, improving project completion by 20%.

English Literary Association, VIT Bhopal

Aug 2023 – Present

Core Member, PR & Marketing | Technical & Finance Wing

- Developed promotional campaigns to enhance visibility and social media engagement; managed event budgets and conducted data analysis using Google Forms.

Additional

Language: English (Full Proficiency), Hindi (Native)

Certifications: Fundamentals of Digital Marketing (March'23), Python by Kaggle (April'23), HTML, CSS and JavaScript for Web Developers – (November'23), Java Spring Framework 6 with Spring Boot 3 course on Udemy (November'24), Gen AI by IBM (April'25), Full Stack Developer MERN by SmartBridge (April'25)