

Faridabad, Haryana

Education

JC Bose UST YMCA Expected 2025

Bachelor of Technology in Computer Science with Specialization in Data Science

Relevant Coursework

Core Computer Science: Data Structures, Algorithms Analysis, DBMS, OOPS, Operating System, Computer Networks. ML and AI: Machine Learning, Statistics, Deep Learning, NLP, Artificial Intelligence.

Projects

Sign-O-Text | GitHub

- Developed an innovative application to translate sign language model using MediaPipe and LSTM, significantly enhancing communication for the hearing impaired.
- Constructed a custom dataset with 30 videos for each sign, each video being 10 seconds long at 24 frames per second, totaling 7,200 frames per sign.
- Optimized gesture recognition accuracy by 15% using OpenCV and MediaPipe.
- Translated gestures into text using LSTM neural networks, achieving 60% accuracy in real-time translation.
- Implemented a user-friendly interface to allow seamless real-time sign language translation, enhancing accessibility and user experience.

Emotion Detection using ResNet50V2 and VGG16 | GitHub

- · Designed an emotion detection system capable of recognizing human emotions from facial expressions using advanced Deep Learning models.
- Implemented ResNet50V2 and VGG16 models, reducing training time by 20%.
- Trained on the **FER2013** dataset with **35,887 images** of facial expressions.
- Achieved 78% accuracy with ResNet50V2, processing 1,000 images per second.

Automatic Number Plate Detection using YOLOv8 | GitHub

- Developed a real-time number plate detection system leveraging YOLOv8 for enhanced security and surveillance applications.
- Processed the Car License Plate Detection dataset with 433 images, achieving 83% detection accuracy.
- Trained the model over 100 epochs, achieving mAP@0.5-0.95.
- Deployed the model using **Streamlit** for real-time detection, handling **50 detections per second**.

Skills

Programming Languages: C++, Python

Machine Learning & AI: Machine Learning, Deep Learning, NLP, OpenCV

Software Development: DSA, GitHub, Operating Systems, Computer Networks

Data Analysis & Visualization: SQL, PowerBI, Statistics

Soft Skills: Communication, Team Management, Leadership

Achievements

LeetCode: Achieved a Top 8% ranking on LeetCode with a rating of 1790+, solving over 600 problems.

Weekly Contest 368: Secured Global Rank 923 in Weekly Contest 368 out of 28,000+ participants on LeetCode.

Amazon ML Summer School: Selected among the Top 3000 students for Amazon ML Summer School'24, from over 50.000+ applicants.

Extracurricular Activities

IEEE YMCA: Tech Media Coordinator at IEEE YMCA SB.

Teaching Initiat: Supported in teaching needy students as part of a social initiative.

Captain of the Volleyball Team in Eklavya Club: Led the team to victory in 6 different tournaments.