Tejeswar Pokuri

Passionate Engineer leveraging Machine Learning and Deep Learning techniques to solve real-world challenges

✉ Email | 📱 9505437075 | in Linkedin | ⌗ Github | 🖥 Website

EDUCATION

Manipal Institute of Technology, Manipal | *B.Tech Computer Science*   **2022-2026**
- CGPA: 9.46

EXPERIENCE

TensorGo
Computer Vision Intern   **May 2024 – Present**
- Contributed to crowd counting, footfall analysis, lip syncing, video news analytics and data analysis projects.
- Achieved an impressive accuracy of 85% accuracy in news video analysis, combining multiple deep learning models and Quantized Computer Vision Models, significantly reducing the inference time by 70% on CPU.
- Worked extensively on YOLO, Whisper, Wav2Lip, P2PNet, and innovative Video Moment Retrieval models.

RUGVED Systems
AI Member   **May 2023 – Present**
- Worked on human anomaly detection in outdoor regions, auto navigation system for visually impaired.
- Directed a team of 4 in the OpenCV AI Competition 2023, showcasing leadership and teamwork skills.
- Mentored 10 juniors in the basics of machine learning, EDA, OpenCV, Python and Deep Learning.
- Researched on AI in aerospace, now focused on Spacecraft Pose Estimation and Dehazing images.

COMPETITIONS & AWARDS

Top 7 Finalist at OpenCV AI Competition 2023   **Dec 2023**
- Led a team of four to a top 7 finish in The International OpenCV AI Competition with Guiding Gaze.
- Received $1000 as award, the sole Indian team among the Top 7, showing global competitiveness

Winner at Investigar Competition   **Oct 2023**
- Winner at Investigar competition with presenting "GESSURE" paper, a dynamic gesture recognition with GUI
- Received 1st place for excellent presentation skills and adept comprehension of research papers.

PROJECTS

Guiding Gaze | *Project Page*
- Crafted an Navigation System to assist the visually impaired, integrating features like Obstacle Detection, Depth Estimation, Scene Recognition, Barrier Detection, Facial Recognition, and Navigation capabilities.
- Custom YOLOv7 (mAP 0.76) trained common obstacles present in household, road, and stairs. MIDAS for depth, VGGFace for facial recognition, EffNetB2 for scene recognition (12 classes, F1 score 0.91), used MapQuest API for directions. Attained realtime navigation using Nvidia GeForce GTX 1650 GPU.

Project Garuda
- A smart surveillance system for effectively detecting human anomalies, and Achieved an accuracy of 80%.
- Utilized Mediapipe to detect anomalies such as running, crawling, and integrated this system into a website.

SKILLS AND ACHIEVEMENTS

Achievements: Solved 100+ problems in leetcode and 50+ problems in codeforces

Course Work: Object Oriented Programming, Data Structures and Algorithms, Database and Management Systems, Operating Systems

Programming Languages: Python , C , C++ ,Java, HTML, CSS, Java Script

Frame Works: React, Node-JS

Libraries: TensorFlow, PyTorch, OpenCV, NumPy, Pandas, Matplotlib, Scikit-learn

Tools:Basic Docker, Linux, Deepstream, Generative AI

Soft skills : Team work, Problem solving, Innovation, Communication