LAXMI CHANDRA SHEKAR AVIRE

Hyderabad, Telangana, India.

Objective

AI and Data Science enthusiast with a B.Tech major in AI and Data Science. Strong background in machine learning, NLP, and computer vision, with experience in developing AI-driven solutions, including GenAI-powered Lip-Sync video translation and depth-based staircase detection. Published researcher with hands-on expertise in data analysis, deep learning, and software development.

Education

Indian Institute of Information Technology, Design, and Manufacturing, Kurnool

2021 - Ongoing

B.tech in Artificial Intelligence and Data Science

CGPA - 7.50

FIITJEE Junior College

SR Sai Public School

2019 - 2021

Intermediate

Percentage - 93%
2018 - 2019

Class X, ICSE

Percentage - 95%

Projects

1. Automatic Lip-Sync video translator Q.

12/2024 - ongoing

• Developed a GenAI and NLP-powered video translation system that translates videos from 100+ languages into Indian languages (Telugu, Hindi, Marathi, Kannada, Bengali) while ensuring accurate lip-sync, preserving the speaker's voice, and maintaining temporal and global consistency. The generated videos are indistinguishable from authentic content, making them resistant to deepfake detection. Visual Result at <u>Demo Result</u>.

2. StairDepth: A Novel Staircase detection **Q**.

7/2024 - 10/2024

- Developed a cost-effective staircase detection system by elimating the need for physical depth sensors for robotic locomotion and individuals with visual impairments, capable of functioning in challenging conditions(low light conditions, irregular staircases etc).
- Improved the precision by 5%, Recall by 10%, IoU by 7% compared to the previous research. **This project has been published at International Journal of Information Technology**, DOI: 10.1007/s41870-025-02438-8.
- 3. SQL Data Analysis Project: Pizza Sales Analysis 🗘.

11/2024

Conducted a comprehensive analysis of a PizzaHut database to derive actionable insights on sales trends, customer
preferences, and revenue distribution.

Publications

- Laxmi Chandra Shekar Avire, Bhuvana Chandrika M, Hemanth Naidu V, Dr. Naresh Babu M. "StairDepth: A novel Staircase Detection through Depth Maps Generated by Depth Anything V2" International Journal of Information Technology, Singapore.
- DOI: 10.1007/s41870-025-02438-8.

Experience

Project Intern at Defence Electronics Research Laboratory, Hyderabad

12/06/2024 - 31/08/2024

Project Title: Development of AI Systems - Design and Testing Perspective

- Collaborating on the design and implementation of AI systems for Medical applications.
- Conducting rigorous testing and evaluation to ensure system reliability and efficiency.

Skills

Programming Languages: Python, C, C++, MySQL, HTML, CSS

Data Analysis and Visualization: PowerBI, Tableau, Excel

Machine Learning: Deep Learning, Computer Vision, NLP, GenAI, Image Processing

NLP & Speech Processing: ASR (Speech-to-Text), NMT (Text-to-Text Translation), Lip-Sync Modeling,

Voice Specification, BERT, Hubert

Frameworks: Hadoop, Spark, Docker, ReactJS

Version Control: Git, GitHub