NALAGARLA CHIRU ABHINASH

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Education

Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology,Chennai **2021 - 2025**
B.Tech in Artificial Intelligence and Machine Learning *9.5/10 CGPA*

Projects

DATABASE INTERACTION USING LARGE LANGUAGE MODEL. **Source Code**

- Developed an application enabling natural language querying of databases using generative AI, eliminating the need for SQL expertise.
- Implemented the Gemini API to convert user queries into SQL, facilitating effortless data retrieval from databases.
- Created a user-friendly web interface with Streamlit, enhancing accessibility and interaction with database systems.
- Integrated automated data analysis and visualization features, improving data exploration and decision-making processes.

IMPROVING THE REGULARITY OF TRANSPORT SERVICES IN RURAL AREAS **Source Code**

- Designed an web application for scheduling the transport services in rural regions.
- Utilized unsupervised machine learning algorithms to schedule transport services based on vehicle availability, occupancy, and traveler preferences.
- Integrated backend services using google firebase to effectively collect and store data of transport schedules.
- Project outcome aimed at significantly improving transport efficiency and reliability, benefiting both travelers and transport providers.

ROBUST HUMAN TARGET DETECTION AND ACQUISITION IN OUTDOOR SCENARIOS **Source Code**

- Developed a robust system for human detection and tracking in outdoor scenarios, using pre-trained models like YOLO for accurate detection, which can be extended to audio signal classification and anomaly detection in audio patterns.
- Implemented tracking algorithms to maintain tracking under occlusions, ensuring continuous monitoring of targets.
- Integrated an anomaly detection module based on pose estimation to identify abnormal postures, triggering visual alarms for immediate attention.
- Project aimed to enhance situational awareness and response in dynamic outdoor environments, contributing to improved security and operational efficiency.

Technical Skills

Programming Languages: Python, Java
Web Technologies: HTML, CSS, Bootstrap, Figma, Streamlit, Flask
Clouds & Databases: Firebase, Microsoft SSMS, OracleSQL, MongoDB
AI Technologies: Tensorflow, Keras, PyTorch, Scikit-learn, Gemini, Hugging Face
Developer Tools: VS Code, GitHub, Colab, Eclipse
Automation Tools: Uipath Studio

Achievements

Published Research Paper **August 2024 – present**

- Published a paper titled "Transport Service Scheduling in Remote Regions by the Application of Machine Learning" in IEEE, detailing the optimization of vehicle schedules using unsupervised machine learning algorithms to enhance transport efficiency and traveler satisfaction.

Smart India Hackathon 2023 **Dec 2023**

- Lead the team and shortlisted among 200 teams at the university level. Collaborated with team members to develop innovative solutions for real-world challenges.
- Learned how to build Scalable systems, deployments and gained industry-level work experience.

Certifications

- Completed AI-ML virtual internship offered by Amazon through AICTE Virtual Internships.
- Completed Android Developer virtual internship offered by Google through AICTE Virtual Internships.
- Successfully completed the Introduction to Networks course and achieved the student-level credential.
- Solved **100+ super hard** DSA problems from **Leetcode**, building problem solving skills.
- **Won 4+ coding contests** organised in Veltech University.