Giridhera Ramanan S

Chennai, India | giridheran007@gmail.com | 9791037077 | linkedin.com/in/giridhera-ramanan

github.com/WeirdoWrench

Education

Panimalar Engineering College Chennai City Campus, Nov 2022 – May 2026
B.Tech Artificial Intelligence & Data Science
CGPA: 8.35/10

Experience

AI/ML Intern, Aug 2024 – Sept 2024
InternPe – IT & Training Company - Chennai, IN
- Completed a 1-month internship building and evaluating 4 ML models with 85–92% accuracy using algorithms such as Logistic Regression, Random Forest, and SVM.
- Deployed solutions for diabetes prediction, car price estimation, IPL match outcome prediction, and breast cancer classification, focusing on preprocessing, feature engineering, and performance tuning (avg. F1-score 0.88).

Chief Operating Officer, Feb 2024 – Feb 2025
Ogrelix IT Solutions - Chennai, IN
- Led a 6-member data acquisition team, increasing data collection efficiency by 40% through streamlined workflows and automated pipelines.
- Spearheaded cross-functional collaboration, implementing innovative strategies that improved project turnaround time and milestone consistency by 25%.

IoT Intern, Nov 2024 – Jan 2025
KUBE RESEARCH LABS PRIVATE LIMITED - Chennai, IN
- Contributed to the development of an autonomous BLE-enabled smart cart, integrating RSSI tracking and ultrasonic sensor logic with Arduino Uno for real-time object avoidance.
- Spearheaded the development of a comprehensive testing protocol for autonomous cart prototypes, personally conducting 50+ individual tests and identifying key areas for hardware and software optimization.

Projects

Mental Health Companion
Python, Hugging Face Transformers, Flask, React, BERT, GoEmotions
- Developed an AI-powered journaling web app using a fine-tuned BERT model (GoEmotions dataset) to predict 27 emotional states with 87% accuracy (macro F1 0.81).
- Engineered a responsive frontend-backend pipeline with Flask and Vite-based React, enabling real-time emotional feedback and contextual support for mental well-being.

Accident Detection with CNN & MobileNetV2 github.com/WeirdoWrench/RAD
TensorFlow, OpenCV, SMOTE, ImageDataGenerator
- Built a real-time accident detection system using MobileNetV2-based CNN trained on 10k preprocessed images (SMOTE-balanced), achieving 92.4% accuracy and 90.1% precision.
- Integrated OpenCV for live video inference with frame-wise prediction and visual alerts, deployable on CCTV streams for automated emergency detection.

Automated Smart Cart | Arduino, BLE, RSSI, Ultrasonic Sensors
Arduino Uno, BLE, RSSI, Ultrasonic Sensors
- Designed and implemented a self-navigating cart using BLE-based RSSI signal tracking for customer following and ultrasonic sensors for obstacle avoidance.
- Engineered fail-safe protocols for self-navigating cart using ultrasonic sensors, reducing potential collision incidents during customer following tests to zero out of 500 tests, ensuring customer safety.

Certifications

AWS Academy Cloud Foundations – AWS Academy Graduate
Fundamentals of Machine Learning & Deep Learning – NPTEL Online Certification
Artificial Intelligence for Real-World Applications – TCS iON
Journey to Cloud: Envisioning Your Solution – IBM SkillsBuild
Introduction to Cybersecurity – Cisco

Technologies

Languages: Python, C, Java, JavaScript, SQL, Bash, Node.js, React.js, MongoDB
Frameworks/Libraries: OpenCV, YOLO, TensorFlow (tf.keras), PyTorch, Pandas, Scikit-Learn, Flask
NLP & Transformer Models: Hugging Face Transformers (e.g. BertForSequenceClassification), custom Transformer architectures
Developer Tools: GNU/Linux, Git, AWS, Github, Visual Studio Code