SURYAGANESH K

📞 7339511092   ✉ kannansurya396@gmail.com   in Suryaganesh K   ⊙Github

Education

Shanmuga Arts Science Technology and Research Academy(SASTRA)
B.Tech Computer Science and Engineering (GPA: 7.26 / 10.00)   *Thanjavur, Tamilnadu*

Kalyana Sundaram Higher Secondary School 2021
HSC-CLASS 12 (Percentage : 77.9)   *Thanjavur, Tamilnadu*

Ponnaiyah Ramajayam Public School 2019
SSLC-CLASS 10 (Percentage : 68)   *Thanjavur, Tamilnadu*

Certification

Internship at IIT-Guwahati
Industrial IoT Workshop (Ministry of Heavy Industries, MHI, SASTRA)
Python Course (Udemy)
Hands-on Ethical Hacking (SASTRA)
C and C++ (Bharathidasan University)

Projects

Internship at IIT-G: Computer Vision-Based Object Detection Using Underwater Dataset
- Collected "Underwater Dataset" with four classes (Artifacts, Shark, Turtle, Pipe), each containing 500 images. Completed annotation using LabelImg (an open-source annotation tool). Implemented YOLOv9 for underwater object detection.

Machine Learning-based Technician Recommendation System Based on Skill Rating and Location with KNN
- To recommend a technician based on customer location using mobile live location.
- Developed a system using the RandomForest and KNN algorithms. Implemented the system using Django to create a website where customers can find nearby technicians.

Real Time Soil Monitoring system using TRB145
- Developed a real-time environmental data collection system using the TRB145 industrial LTE router as the communication backbone. The system integrated a range of sensors, including three-pin, five-pin, temperature, and leaf sensors, all working under a Solid Monitoring Model. This setup enabled continuous monitoring and analysis of environmental conditions. The project focused on implementing key IoT concepts, multi-sensor fusion, and reliable data transmission for actionable insights, highlighting my skills in IoT systems design and real-time data integration..

Helmet Violation Detection using Vision Transformer (ViT)
- Developed a deep learning pipeline using Vision Transformer (ViT) for real-time helmet violation detection in surveillance videos, custom YOLO-labeled dataset. The system classifies Helmet, Non-Helmet, Bike, and License Plate, extracts video frames, detects violations, and uses EasyOCR for license plate recognition. Integrated Twilio API to send automated fine messages by matching plates with mock contact data. Visualized training metrics and evaluation results including confusion matrix, precision, recall, and F1-score..

ECGSensor Enabled Heart Rate Monitoring System for Hospitalized Patients
- Developed a system using an ECG sensor to measure the heart rate of patients in real-time, providing clinicians with accurate and timely data to make informed decisions. This system helps identify potential heart abnormalities and enables early intervention, improving patient outcomes and reducing the risk of complications

IoT Fall Detection System for Older Adults and Hospitalized Patients
- Developed a wearable device or sensor-enabled system using machine learning algorithms and IoT connectivity to detect falls in real-time. The system sends alerts to caregivers or healthcare professionals, providing timely assistance and preventing serious injuries. This system improves the safety and independence of older adults and hospitalized patients.

Skills

Languages: Tamil,English
Technical Skills: HTML,CSS,JS,NodeJS,java, Python, Industrial IoT.
Soft Skills :Learning agility, Value Driven, Problem-solving, Technical troubleshooting, Adaptability, Proactivity,Conflict Resolution,Effective Communication,Web technologies (HTML, CSS,JS,NodeJS)

Extra-Curricular Activities

Red Ribbon Club (RRC) oraganizer:Encouraged blood donation drives and raised awareness about blood donation benefits.
College Fest-Emulsion cluster(Member)