JAYA SAKTHI S

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OBJECTIVE

I am an enthusiastic engineering student with a basic understanding of electronics and programming. I am looking for opportunities to learn new skills, work on real projects, and grow in both core and non-core fields.

EDUCATION

SRM University

Tamil Nadu, India

B. Tech in Electronics and Communication Engineering

July 2022 - May 2026

GPA: 7.92/10

TECHNICAL SKILLS

Languages: Python, C

Tools: GitHub, MATLAB, Xilinx, Arduino IDE Technologies: IoT, Embedded Systems, SQL basics

Soft Skills: Problem solving, Debugging, Logical Thinking, Communication

PROJECTS

SKFLIX - Movie Recommendation System

Web Development Project

- Developed a movie recommendation system using HTML, CSS, and JavaScript for the frontend and Java with Spring Boot for the backend, implementing 8+ core features.
- Integrated MySQL to manage 50,000+ movie records, optimizing query performance for faster recommendations.
- Implemented search, genre-based filtering, and user ratings, improving user engagement by 40%.
- Designed a responsive UI, ensuring smooth performance across 10+ device types, enhancing accessibility and user experience.

Satellite Image Enhancement using Restormer

Deep Learning and Image Processing Project

- Implemented a transformer-based model (Restormer) to denoise and enhance satellite imagery.
 - Fine-tuned pre-trained Restormer architecture on a satellite image classification dataset from Kaggle.
 - Applied Gaussian noise to simulate real-world degradation and trained using MSE-based loss.
 - Evaluated image quality using PSNR, MSE, SSIM, and FSIM metrics to validate performance.
- Achieved high visual clarity and structural preservation in enhanced satellite images.

IoT-Based Battery Management System for Electric Vehicles

Embedded System Project

- Developed real-time monitoring for battery parameters using sensors interfaced with a microcontroller.
- Enabled Wi-Fi communication for cloud logging and AI-based fault diagnostics.
- Included LCD, buzzer alerts, and threshold indicator for user feedback and safety.

Air Quality Monitoring System using MQ7

 $IoT\ Dashboard\ +\ Embedded\ Sensor\ Integration$

- Used MQ7 sensor to detect CO levels, interfaced with Arduino for processing.
- Real-time data monitoring via Blynk IoT platform with notification and dashboard UI.

Arduino Obstacle Avoiding Robot with Voice Control

Automation and Control Project

- Built a robotic vehicle using ultrasonic sensors and motor drivers.
- Integrated Bluetooth and voice command features for remote navigation.

CERTIFICATIONS

SoC Design for Low Power – Qualcomm (NIT Trichy)

IoT & MATLAB Workshop - IIT

BSNL Internship - Telecommunications

ACHIEVEMENTS

1st Place – Paper Fiesta, Kongu Engineering College (National-level Symposium)

LANGUAGES

 $\rm English-L/S/R/W$

 $\mathrm{Tamil} - \mathrm{L/S/R/W}$