Lingam Roopesh

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Professional Summary

IoT and Embedded Systems graduate with hands-on experience in ESP32-based automation, Python application development, and real-world hardware projects, complemented by an industry internship in drone technology involving live operations, training, and deployment; skilled in building fault-tolerant systems, embedded control logic, and software-driven automation, with cloud fundamentals in Microsoft Azure and AWS supporting scalable IoT and intelligent system development.

Education

KL University,GPA:8.47/10.0 — Vijayawada, Andhra Pradesh
Bachelor of Technology in Internet of Things — *Sep. 2021 – May 2025*

Sri Gayatri Junior College — Hyderabad, Telangana
MPC — *Jun. 2019 – 2021*

Experience

Intern — July 2024 – Oct 2024
Fopple Drone Technologies Pvt.Ltd — *Kankipadu,Vijayawada, AP*

- Participated in real-time drone operations including mission planning, flight execution, and data collection workflows.
- Conducted training sessions for 5 trainees on drone flying techniques, safety protocols, and operational procedures.
- Supported certified drone pilots during field deployments, ensuring smooth execution and accurate data capture.
- Contributed to improving training and deployment processes, enhancing operational efficiency and customer satisfaction.

Projects

Text-To-Speech-Convertor | *Python, Speech Synthesis, Automation* — Nov 2025 – Jan 2026

- Developed a Python-based Text-To-Speech system that converts written text into natural-sounding speech.
- Implemented adjustable speech rate and multiple voice options for accessibility and usability.
- Designed the system for real-time applications in learning, accessibility, and productivity tools.
- Structured, documented, and version-controlled the project using GitHub.

Secret Message Encoder and Decoder | *Python, ASCII, Bitwise Logic, GitHub* — Aug 2025 – Nov 2025

- Built a secure text-to-binary and binary-to-text encoding system using ASCII mapping and bitwise operations.
- Implemented validation and debugging logs to detect and prevent corrupted data outputs.
- Delivered a reliable encryption-style tool for secure message transformation and recovery.

Customizable Home Automation with Fault Identification | *ESP32, Embedded C* Dec 2024 – May 2025

- Designed a fault-tolerant home automation system using dual ESP32 controllers with Cold Standby Sparing Redundancy (CSSR).
- Implemented automatic controller failover to ensure uninterrupted operation during hardware failure.
- Built energy-efficient appliance control logic to reduce power consumption.
- Led a 3-member team, coordinating system design, testing, and final deployment.

Functional Electric Vehicle (EV) Cycle | *BLDC Motor, Power Electronics, Embedded Systems* Nov 2023 – Mar 2024

- Developed a working EV cycle using a 48V BLDC motor, electronic speed controller, and custom power distribution.
- Designed control wiring and safety systems for stable and efficient motor operation.
- Successfully demonstrated the prototype at a university technical expo.

Personal Portfolio Website | *HTML, CSS, JavaScript, GitHub* — Oct 2023 – Present

- Built a responsive portfolio website to showcase projects, technical skills, and professional profile.
- Implemented interactive project sections and recruiter-friendly contact forms.
- Currently redesigning the site with modern UI/UX and performance optimization.

Technical Skills

Programming & Scripting: Python, C, Embedded C, HTML, CSS
Embedded & Hardware: ESP32, Arduino, STM Microcontrollers, Sensors, Actuators
IoT & Communication: IoT Systems, Serial Communication, Basic Networking
Developer Tools: Git, GitHub, VS Code, Arduino IDE, Google Colab
Intrapersonal Skills: Problem Solving, Self-Learning, Analytical Thinking, Time Management
Interpersonal Skills: Team Collaboration, Technical Communication, Leadership, Coordination

Certifications

- Microsoft Certified: Azure Fundamentals
- Microsoft Certified: Azure AI Fundamentals
- AWS Certified Cloud Practitioner
- NPTEL – Introduction to Industry 4.0 and Industrial Internet of Things
- Artificial Intelligence & Machine Learning using Python (Industrial Automation – Level 2), KL University

Achievements

- Organized and supported a Drone Technology Workshop conducted by Fopple Drone Technologies at Godavari Institute of Engineering and Technology.
- Assisted in industrial visits and live demonstrations for KITs College, explaining real-world drone applications.

Languages Known

English | Telugu | Hindi