Rekha Ruthika

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ABOUT   **PORTFOLIO**

Fervent Electronics and Communication Engineering (ECE) student in the pre-final year at KL University, Hyderabad, specializing in **Embedded Systems**. Possesses a strong interest in electronics, communication systems, programming, and **artificial intelligence**, with a focus on integrating AI into embedded solutions to enhance functionality and efficiency. Dedicated to continuous learning, innovation, and contributing to impactful projects that bridge academic knowledge with real-world applications.

EDUCATION

B.Tech, Electronics and Communication Engineering   Expected 2027 - CGPA: **9.86**
KL University Hyderabad
Intermediate (MPC)   2023 - **CGPA: 9.8**
Gayathri Junior College
High School   2021 - **CGPA: 10.0**
Sri Narayana High School

PROJECTS

ESP32-Based Robotic Arm and Car for Remote Assistance :   GitHub
Developed a web-controlled robotic arm and vehicle system for remote operations in agriculture, delivery, and 3D printing. Currently extending the project to an AI-enabled rover for automated crop detection and harvesting.

Smart Traffic Management using Edge AI (Ongoing) :   GitHub
Developing an intelligent traffic monitoring system using Edge AI for real-time vehicle detection and adaptive signal control. Aims to deploy optimized CNN models on edge devices to minimize latency and improve traffic flow efficiency.

Gesture-Based UI System :   GitHub
Built a real-time gesture-driven interface enabling touchless interaction with digital systems. Focused on low-latency execution and efficient signal interpretation for smooth user experience.

Code Launch – Online Foundation Program Platform :   GitHub
Code Launch is an online foundation program website built using Next.js and Firebase to help Intermediate students transition into BTech/BCA. It provides beginner-friendly modules on programming, OOPS, AI basics, and Power BI with structured learning and authentication support.

SKILLS

Programming Languages -	C, Java, Python
Data Structures -	DSA and Algorithms
Operating Systems -	Process, Memory, Scheduling Concepts
Artificial Intelligence -	Machine Learning Basics
Web -	Next.js, Firebase,
Embedded Systems -	STM32 (CubeIDE), MSP430, ESP32, Arduino, Embedded C

ACHIEVEMENTS

- Secured **1 Lakh funding** from TiHAN, IIT Hyderabad for Edge AI Traffic Management system.
- **Winner – INNOV-A-TECH** Hackathon (Sensors Track).
- **Tech Co-Lead** –Organized technical events.
- **Peer Mentor** for 2nd year students and **Student Placement Coordinator.**
- AWS Cloud Practitioner (CLF-C02).