

KOMMU VENKATA SASIDHAR

☎ [+91-9000136344](tel:+91-9000136344) ✉ sasidharkommu@gmail.com [in LinkedIn](#) [GitHub](#) [</> LeetCode](#)

OBJECTIVE

Aspiring Embedded Systems Engineer, eager to contribute to safety-driven embedded systems and intelligent mobility solutions in the automotive sector by applying skills in C/C++, microcontroller programming, and real-time system development.

EDUCATION

Amrita School of Engineering

B.Tech - Computer Science and Engineering - CGPA: 7.15

Sept 2022 – June 2026

Ettimadai, Tamil Nadu

Narayana Junior College

MPC - Higher Secondary Education - Percentage: 97.8%

June 2020 – Aug 2022

Hyderabad, Telangana

Narayana Olympiad School

Secondary Education - GPA: 10.00

July 2019 – June 2020

Hyderabad, Telangana

PROJECTS

AgroESP – Smart Polyhouse Solar Drying System

React | Node.js | SQL | InfluxDB | MQTT | Tailwind CSS

- Contributed to web development for AgroESP under Sony's SSUP at Amrita Vishwa Vidyapeetham.
- Developed a responsive web interface using React and Tailwind CSS to monitor solar dryer environments.
- Used Node.js for backend APIs and SQL for authentication and profile management.
- Integrated MQTT protocol for real-time communication with Sony Spresense edge devices.
- Stored and visualized time-series sensor data via InfluxDB for monitoring temperature/humidity.
- Supported intelligent automation using multicore learning models for smart polyhouse farming.

Fog Computing–Driven Real-Time Air Quality Monitoring System

Fog Computing | LoRa | AWS | Raspberry Pi | Arduino | React | Node.js

- Designed a fog computing system to enable edge-level air quality monitoring and reduce cloud load.
- Used Raspberry Pi as fog nodes for local data filtering before cloud transmission.
- Established LoRa-based network for energy-efficient long-range sensor communication.
- Integrated with AWS EC2, IoT Core, and RDS for hosting, messaging, and database management.
- Built a React + Node.js dashboard for real-time visualization and threshold-based alerts.

Drone Simulation for Autonomous Navigation

Python | Graph Structures | Dijkstra's Algorithm

- Developed a 3D Python simulator to test autonomous drone navigation in dynamic environments.
- Used graph-based terrain models and implemented Dijkstra's algorithm for path optimization.
- Simulated real-time route planning for disaster response and search/rescue missions.
- Focused on algorithmic efficiency for deployment in remote or hazardous zones.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, HTML, CSS

Frameworks/Libraries: React.js, Node.js, Express.js, Tailwind CSS

Databases: MongoDB, SQL

CERTIFICATIONS

- Full Stack Web Development – Apna College
- Artificial Intelligence Primer – Infosys
- Software Engineering Intern – HackerRank

ACHIEVEMENTS

- Presented a paper titled "Federated Learning Approach for Predicting Conviction using FIR Data" at **ICDSA 2025**.