GANAPANENI CHAITRA SAI CHAKRAVARTHI

+917675051757 ganapanenichaitrasai@gmail.com LinkedIn GitHub LeetCode

OBJECTIVE

Aspiring Embedded Systems Software Engineer with a strong foundation in C/C++, microcontroller programming, and real-time system development, eager to contribute to safety-critical and intelligent embedded solutions across automotive and IoT domains.

EDUCATION

Amrita School of Engineering — **Sept 2022 – June 2026**
B.Tech - Computer Science and Engineering - ***CGPA: 8.28*** — *Ettimadai, Tamil Nadu*

Narayana Junior College — **June 2020 – Aug 2022**
MPC - Higher Secondary Education - ***Percentage: 95.7%*** — *Hyderabad, Telangana*

Narayana Olympiad School — **July 2019 – June 2020**
Secondary Education - ***GPA: 10.00*** — *Hyderabad, Telangana*

PROJECTS

Temperature-Based DC Fan Control System using STM32F103C8

STM32F103C8 | Keil IDE | Embedded C++ | I2C | ADC | 16x2 LCD | DC Fan | Potentiometer

- Built a temperature-controlled DC fan system on STM32F103C8 with real-time monitoring via ADC and LCD.
- Implemented I2C-based LCD display and interrupt-driven manual control using NVIC for enhanced flexibility.
- Demonstrated skills in embedded systems, sensor interfacing, and hardware-software integration.

Fog Computing-Based Air Quality Monitoring System

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

- Developed a fog-enabled air quality system with real-time edge processing on Raspberry Pi and LoRa-based sensor communication.
- Integrated AWS IoT Core and EC2 for secure device management and cloud synchronization.
- Built a React-Node.js dashboard for real-time visualization, alerts, and historical analytics.

AgroESP – Smart Polyhouse Solar Drying System

Flutter (Dart) | REST APIs | Sony Spresense Board

- Contributed as part of the mobile development team to AgroESP, a smart agriculture project under the Sony Semiconductor Solutions University Partnership (SSUP) at Amrita Vishwa Vidyapeetham.
- Developed a cross-platform Flutter mobile application enabling real-time monitoring and control of solar dryer systems integrated with Sony Spresense edge devices.
- Integrated REST APIs for live sensor data, remote control, and edge model feedback under Sony SSUP initiative.

TECHNICAL SKILLS

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

Frameworks/Libraries: React.js, Node.js, Express.js, .NET

Databases: MongoDB, SQL

CERTIFICATIONS

- Foundational C# with Microsoft - FreeCodeCamp and Microsoft
- Full Stack Open - University of Helsinki
- Supervised Machine Learning: Regre sion and Classification - Coursera
- Advanced Learning Algorithms - Coursera

ACHIEVEMENTS

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