



# Sucharitha Medabalimi

## Embedded Software Developer

As an embedded engineer, I specialize in crafting seamless systems where hardware meets software magic. I thrive on optimizing performance and reliability through microcontroller mastery and real-time finesse. My work fuels innovations that drive automotive safety, healthcare precision, and smart technology evolution, making every device smarter and every connection stronger. I have an experience of total 2.7Y , in the Embedded field.

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📍 Hyderabad, India

## WORK EXPERIENCE

### Embedded software developer

#### X yug Technologies pvt ltd

07/2023 - Present

Hyderabad

*XYUG Technologies is a prominent player in the tech industry, offering innovative solutions across multiple sectors. The company is committed to developing talent and encouraging growth through advanced technology and a collaborative work culture.*

##### Achievements/Tasks

- Developed and integrated hardware components for an innovative Gold ATM dispensing gold bullion.
- Programmed and debugged Arduino-based firmware to interface with hardware, implementing core functionalities and system controls.
- Integrated multiple sensors (smoke, heat, vibration) into the embedded system for enhanced security and alert capabilities.
- Utilized Arduino IDE and C programming to optimize and troubleshoot embedded software, ensuring robust and responsive performance.
- Developed and implemented IoT solutions for an ATM system, utilizing Arduino and ESP32 to connect with cloud servers. Established secure communication between the ESP32 module and AWS, ensuring reliable data exchange and connectivity.
- Explored and applied Real-Time Operating Systems (RTOS) to manage multitasking and system resources efficiently.

### Jr.Embedded Software developer

#### Vistan NextGen

03/2023 - 07/2023

*Vistan NextGen provides the Autonomous serving Robots for the Restaurants. It is a product-based company which works on the ROS technology.*

##### Achievements/Tasks

- Developed and tested autonomous robot systems using Arduino, Raspberry Pi, and ESP32. Implemented DC motors, LiDAR, and IMU sensors to monitor bot orientation and movement.
- Focused on sensor development and testing within a Robot Operating System (ROS) framework. Controlled robot navigation and direction using motor integration and ESP32 for enhanced functionality.

## EDUCATION

### B.Tech

#### University college of Engineering,KU.

08/2014 - 05/2018

##### Courses

- Electrical and Electronics Engineering (EEE).

## SKILLS

C

C++

Emb C

Shell programming

Basics on python.

Bare metal programming

Communication Protocols: UART, I2C, SPI

Git

Linux line commands

Arduino ide

VS code

Ubuntu

## ACHIEVEMENTS

Successfully led the installation of ATMs at Ameerpet Metro Station and Tumkur, enhancing accessibility and customer service

## PERSONAL PROJECTS

### Weather Monitoring System

- This project mainly focuses on sending/updating the temperature value to the Kernel Masters web server using the USART6 port by the Rayyan mini board. LM35 acts as a temperature sensor, and print the same temperature value on the display.
- Understanding on the stm32 microcontroller and cubemx software.

## CERTIFICATES

### Embedded Developer Certificate

*I have completed the course from KERNEL MASTERS. During the course period i have learned C, Emb C, about microcontroller and used Keil ide.*

## LANGUAGES

English

*Professional Working Proficiency*

Telugu

*Professional Working Proficiency*

Hindi

*Professional Working Proficiency*

## INTERESTS

Badminton

Watching movies

Reading Novels