

Krishna.A

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Professional Experience Summary

- Over 2.5+ years of Hands-on Experience in Embedded Firmware Developer of Embedded Applications, Design and Implement Software for Embedded Devices, Debugs and test the code.
- Proficient in **C Programming Language and Embedded C.**
- Good experience in **protocol,Interrupts,Peripherals.**
- Basic Knowledge of **real-time operating systems (RTOS).**
- Hands-on Experience on **communication protocols** like **UART, SPI, I2C.**
- Hands on Experience in Different IDE: **STM32Cub-IDE, Keil IDE, Arduino IDE, ESP32,STM32.**
- Basic experience in **Linux.**
- Debugging tools and testing equipment.
- Good in Analyzing & Understanding requirements.
- Good Interpersonal skills, commitment, result oriented, hardworking and zeal to learn new technologies and undertake challenging tasks.
- An effective team player with abilities to work collaboratively with team, Analysts and Client representatives.

Educational Qualification

- BSC(Computers)|**SR&BGNR Govt. Arts & Science College**| 7.84 Cgpa |(2018 - 2021)
- Intermediate(M.P.C) |**SJKM Junior College** | 72%|2018
- S.S.C |**Pragna vidyaniketan school** | 8.5 Cgpa| 2016.

Professional Experience

- Lance Soft Engineering Pvt.Ltd Hyderabad.
Feb 2023 - Present

Technical Skills

Programming Languages	C, Embedded C.
Operating System	Linux & Windows.
Development Tools	STM32 CUBE, ESP-IDF,KIEL- IDE, Arduino- IDE
Communication Protocols	SPI,UART,I2C.
Software Tools	Keil,Code Blocks,Visual studio, Keil µVision Debugger.
Debugging Tools	DMM,Oscilloscope , JTAG.

Technical Project Profile

1. Project Name: Automatic Street Light Controlling LDR Sensor and ESP32

Location	Bangalore
Role	Embedded Developer
Team Size	8
Software Tools	Arduino IDE, ESP32 , LDR Sensor, IR Sensor,
Programming Language	Embedded C, and C Programming.

Project Description:

Developed an automatic street light system using ESP32 and an LDR sensor. Lights turn ON in the dark and OFF in daylight. A relay controls the lights, and a web interface allows remote monitoring. The system reduces manual effort and saves electricity.

Responsibilities

- Developed firmware to control street lights using ESP32 based on sensor input..
- Interfaced LDR and current sensors with ESP32 to measure light intensity and current usage.
- Controlled relay module to automatically switch lights ON/OFF depending on ambient light.
- Set up a basic HTTP server on ESP32 for remote monitoring and manual control.
- Tested the system under various lighting conditions to ensure reliable performance.
- Debugged firmware issues related to sensor data and light control logic.
- Collaborated on hardware integration, software development, and documentation.

2. Project Name: - Medical Monitoring devices

Role	Embedded Developer
Team Size	4
Software Tools	ESP32 , Embedded C, and C Programming

Project Description:

The MAX30100 Pulse Oximeter is a medical device that is used to measure Blood oxygen saturation (Spo2) levels, heart rate (BPM) and pulse strength. The MAX30100 works by shining both lights onto the finger or earlobe (or essentially anywhere where the skin isn't too thick, so both lights can easily penetrate the tissue) and measuring the amount of reflected light using a photo detector.

Key Responsibilities:

- Responsible for firmware development and validation.
- Implementing functions for reading and writing sensor registers over I2C.
- Data is updated through serial communication Processing.
- Processing raw PPG data to extract heart and SpO2 values.

Declaration

I hereby declare that all the information given above is true and correct to the best of my knowledge

(Krishna)