

NAGALAKSHMI MARAGONI

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OBJECTIVE:

To obtain a role in Embedded Systems development where I can apply my skills in Embedded C, microcontroller programming, and real-time system design to contribute to innovative hardware-software integration projects, while continuously expanding my technical Skills.

SUMMARY:

- Experience with STM32F401RBT6 ARM Cortex M4 microcontroller.
- Hands-on experience in bare-metal programming for GPIO, Interrupts, ADC, UART, I2C using Keil μ Vision.
- Experience in HAL programming using STM32CubeIDE.
- Familiar with debugging tools such as GDB and ST-Link.
- Version control experience using Git.
- Basic understanding of Intel 8085 Assembly Language Programming (ALP).

SKILLS:

Languages: C, Embedded C, Intel 8085 ALP, Linux System Programming

Debugging Tools: ST-Link Debugger, GNU_GDB

Protocols: UART, I2C, SPI

IDEs: Keil, STM32CubeIDE

EDUCATION

- **B.Tech(EEE)(2020-2023):**
Brilliant Grammar School Educational Societies, Affiliated to JNTU Hyderabad- **7.2/10**
- **Diploma(EEE)(2017-2020):**
Government Polytechnic College, Nalgonda- **75%**

PROJECTS

- **IoT-Based Smart Weather Monitoring System (Using HAL and Bare-Metal Programming)**

Tools: STM32CubeIDE, Keil μ Vision5, Docklight, ST-Link Debugger

Description: Captures temperature data from the LM35 sensor every 5 seconds and displays it on a 16x2 LCD along with real-time information from RTC DS1307. The data is pushed to an ESP8266 Wi-Fi module when internet is available; otherwise, it is stored in EEPROM with timestamps.

DECLARATION

I Nagalakshmi Maragoni, hereby declare that the above information is true to the best of my knowledge.

M.Nagalakshmi