

# LAKSHMI NIKHITHA BEERA

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## OBJECTIVE:

To begin my career as an Embedded Software Developer by applying my skills in C, embedded systems, and real-time hardware programming, while contributing to real-world embedded applications.

## SKILLS:

- Experience with **STM32F401RBT6** microcontroller and **ARM Cortex-M4** architecture.
- Experience on **C, Embedded C, Linux system programming.**
- Experience on Serial Communication Protocols like **UART, I2C, SPI.**
- Experience on Source Version control tool: **GIT.**
- Debugging: **GDB, ST Link-V2, Valgrind, Strace.**
- Experience on Operating Systems: **Linux(ubuntu), FreeRTOS.**
- IDEs: **STM32CubeIDE, Keil uVision5, u-center 2.**

## PROJECTS:

### SMART TRACKING SYSTEM

- Implemented a Real-time safety system using STM32F401RBT6 with GSM and GPS.
- **Tools:** STM32F401RBT6, GSM, GPS, 16x2 LCD, STM32CubeIDE.
- **Key points:** Designed detection algorithm, UI with buzzer and LEDs, UART and I2C communication.

### IOT WEATHER MONITORING SYSTEM

- Implemented weather monitoring system with STM32F401RBT6, ESP8266 Wi-Fi, RTC and EEPROM.
- **Tools:** STM32F401RBT6, ESP8266, LM35, ADC, RTC, EEPROM, STM32CubeIDE.
- **Key points:** RTC timestamps, Wi-Fi data transmission, EEPROM failover logging.

### AGROBOT

- A Robot which is designed to automate agricultural tasks such as crop monitoring, irrigation using robotics and IOT technology to enhance farming efficiency, reduce labor costs.
- **Tools:** Arduino UNO Board, L293D Motor Driver Shield, Ultrasonic Sensors, Motors (BLDC, DC, Servo), Lipo Battery.

## EDUCATION QUALIFICATION:

- Trained at Kernal Masters for Industrial Embedded Systems Developer - 2025.
- Bachelor of Technology in Electronics & Communication Engineering  
Rajiv Gandhi University of Knowledge Technologies Ongole, Andhra Pradesh -2024.