

ADITYA K JYOTHIRAJ

Thrissur, Kerala, 680101 | 8129340918 | adityajyothiraj@gmail.com | [Linkedin](#) | [Github](#)

SUMMARY

A highly motivated and detail oriented Electronics and Communication Engineering graduate with specialized training in Embedded Systems. Passionate about designing and developing innovative, technology driven solutions, with hands on experience in embedded projects that bridge hardware and software seamlessly.

WORK EXPERIENCE

SOFTEN TECHNOLOGIES	Ernakulam,Kerala
Embedded Systems Engineer	2024 - 2025

- Developed and implemented a real-time IoT system by interfacing sensors with ESP32, transmitting data to a mobile application via Firebase using API integration, leveraging MIT App Inventor for front-end development.
- Gained hands-on experience in image processing and recognition using the OpenCV library, implementing techniques such as Optical Character Recognition (OCR) with Tesseract to extract and analyze text from images.

EDUCATION

Bachelor of Technology : Electronics and Communication Engineering	2019 - 2023
Ponnaiyah Ramajayam Institute of Science & Technology, Thanjavur, Tamil Nadu	

CERTIFICATIONS

- Embedded System Course Completion & Internship – Soften Technologies
- Embedded System Internship – Torc Infotech
- Certified Penetration Tester – Redteam Hacker Academy

SKILLS

- Programming Languages : C, Embedded C, Basic Python.
- Tools : Keil, Proteus, PlatformIO, Arduino IDE, STM32 Cube, ESP-IDF, KICAD, Firebase, MIT App.
- Microcontrollers : 8051, PIC, Arduino(atmega328p), ESP32, Raspberry Pico, STM32.
- Protocols : UART, SPI, I2C, Bluetooth, CAN, HTTP, UDP, MQTT .
- Operating Systems : Windows, Ubuntu(Linux Commands).
- Soft Skills : Git, MS Office.

PROJECTS

- **Aquatic Debris Remover**
Designed a trashbot model using esp32 development board interfaced to a0n L298N motor driver with 5v gear motors, SEN0198 turbidity sensor and SEN0161 pH sensor for collecting aquatic floating debris and realtime water quality checking.
- **“AQUALAYA” Automatic IOT based Pump Controller**
Designed and implemented an IoT-based automatic pump controller using ESP32 and Firebase, enabling wireless control via mobile app and physical panel with real-time water level monitoring and servo actuated pump switching.
- **“PARKY” Automatic Gate Control With Vehicle Registration Detection**
Developed an IoT-based smart parking system using ESP32, Firebase, IR sensors, and OpenCV - OCR, enabling mobile app slot booking with automated gate control via vehicle number plate recognition.

LANGUAGES

- English
- Malayalam