

ATHUL KS

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ERNAKULAM, Kerala

SUMMARY

Results-driven Embedded Firmware Engineer with 5 months of hands-on experience in designing and optimizing firmware solutions. Seeking opportunities to contribute technical expertise in embedded systems and collaborate on innovative projects.

TECHNICAL SKILLS

C,C++,PYTHON,HTML,MYSQL,EMBEDDED C,

Microcontroller/microprocessor-based systems

Real-time operating systems (RTOS)

Communication protocols: UART, SPI, I2C, Modbus,RS 485, Single wire,RS 232

Firmware development, Bootloaders, FOTA

SOFT SKILLS

Time management, Communication skills, Leadership, English, Critical thinking, Creative thinking, Adaptability, Work under pressure, Fast learner, Project Coordination, Problem Resolution

EDUCATION

ELECTRONICS AND COMMUNICATION ENGINEERING

GOVERNMENT ENGINEERING COLLEGE WAYANAD • MANATHAVADY, Kerala

07/2023

PLUS TWO

MODEL TECHNICAL HIGHER SECONDARY SCHOOL KALLOOR • ERNAKULAM, Kerala

03/2019

PHYSICAL SCIENCE(ELECTRONICS)

SSLC

SDPYKPMHS EDAVANAKKAD • ERNAKULAM, Kerala

03/2017

EXPERIENCE

Embedded Firmware Engineer

RIOD LOGIC PVT LTD • Ernakulam, Kerala

09/2023 - Present

As an Embedded Firmware Engineer at Riod Logic Pvt Ltd, I am actively involved in leading-edge Research and Development initiatives. My role encompasses decoding existing systems, coding robust firmware solutions, and pioneering the development of innovative products that align with specific needs and constraints. Leveraging expertise in C, C++, Python, HTML, and embedded C, I contribute to the enhancement and optimization of firmware for microcontroller/microprocessor-based systems.

Key Responsibilities:

- Spearheading R&D efforts to decode and understand complex systems, ensuring a comprehensive grasp of product intricacies.
 - Collaborating with cross-functional teams to identify and address specific needs and constraints in firmware development.
 - Coding and development of firmware solutions, focusing on efficiency, reliability, and seamless integration with hardware components.
 - Proficient in communication protocols such as UART, SPI, I2C, Modbus, and experienced in the development of bootloaders and Firmware Over-The-Air (FOTA) updates.
 - Actively participating in the ideation and implementation of groundbreaking projects to create value-driven and innovative solutions.
 - Continuously staying abreast of the latest industry trends and technologies to bring cutting-edge approaches to firmware development.
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LANGUAGES

English, Malayalam, Tamil, Hindi

COLLEGE PROJECTS

IOT BASED FOOD QUALITY MONITORING SYSTEM

An IoT-based food quality monitoring system using NodeMCU and MQ3 and TH11 sensors is a device that helps to monitor the quality of food products by measuring temperature, humidity, and alcohol levels. The NodeMCU is used to connect the device to the internet and enable real-time monitoring, while the MQ3 and TH11 sensors are used to detect alcohol levels and temperature and humidity levels respectively. This system is ideal for use in the food industry to ensure that food products are stored and transported under optimal conditions to maintain their quality and freshness.

AUTONOMOUS WASTE MANAGEMENT VEHICLE

An autonomous waste management vehicle using Arduino Mega, NEO 6M GPS module, HC05 Bluetooth module, 3 axis digital compass v3, HCSR 04 ultrasonic sensor, and L298N motor driver is a self-navigating vehicle that collects and disposes of waste. The Arduino Mega is the brain of the system, controlling the vehicle's movements and sensors. The NEO 6M GPS module and 3 axis digital compass v3 help the vehicle navigate, while the HCSR 04 ultrasonic sensor detects obstacles, for checking the bin is full and the HC05 Bluetooth module enables serial monitoring. The L298N motor driver controls the vehicle's motors and ensures precise movement. This system is ideal for waste management in large public areas, as it can autonomously navigate and collect waste, making waste management more efficient and cost-effective.

VOLUNTEERING

SPC,NSS,SVC,TECHFEST CORE COMMITTEE,SFI UNIT COMMITTEE.

HOBBIES

ELECTRONICS SYSTEM REPAIRING ,CODING ,MUSIC