Amarnath S

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Summary

Detail-oriented Embedded Engineer with expertise in hardware integration, embedded systems, and IoT sensor interface development. Proficient in communication protocols and driven by a passion for solving technical challenges through collaborative teamwork and innovative solutions.

Skills

Programming: C/C++, Embedded C, Python, HTML & CSS
Hardware: Arduino UNO, 8051 Microcontroller, ESP8266/ESP32, PCB Design, IoT
Software: Arduino IDE, Blynk Console, Think Speak, WOKWI, MATLAB Simulink
Operating Systems: Windows, Linux
Communication Protocols: I2C, UART, RFID

Education

B.E: Electronics and Communication Engineering Sep 2020 – May 2024
K Ramakrishnan College Of Technology, Trichy
CGPA: 7.48

HSC: Computer Science Jun 2019 – Mar 2020
U.D.V Higher Secondary School, Trichy
Percentage: 51%

SSLC Jun 2017 – Mar 2018
Bishop Heber Higher Secondary School, Trichy
Percentage: 60%

Experience

Emsys Technologies, Coimbatore Feb 2024 – Mar 2024
Intern - Sensor and Integration

- Resolved hardware and software interface challenges, enhancing system integrity.
- Conducted rigorous testing of hardware and software in a sandbox environment prior to production deployment.

Power Integration Solution, Trichy Jun 2024 – Aug 2024
Trainer - Communication Protocols and IoT Sensor Interfacing

- Implemented I2C, UART, and RFID protocols to ensure efficient data transfer across systems.
- Optimized IoT sensor interfaces, improving data acquisition efficiency and reducing latency.

Projects

- **Infant Cry Detector with Automatic Smoothing Using Arduino**
- **IoT-Based Drug Detection and Attendance Tracking System**
- **SEIS Alert Using NodeMCU**
- **Home Automation Using Arduino**
- **IoT-Based Farming Protection and Monitoring System**

Mini Projects

- Audio Equalizer
- Water Level Indicator
- Running LEDs
- Power Supply
- Four-Way Traffic Signal

Achievements

- Developed an adjustable stand for heavy products, securing a top 50 position in TNSI-2022 [10/03/23].
- Predicted renewable power sources based on weather data in Tech Hackathon 2023 [01/04/23].

Training/Workshops/Course Certifications

- Completed PCB Design and Manufacturing Training, RAACT [15/12/21 - 17/12/21].
- Completed Embedded Systems & IoT Training, Hitakey Infosys [10/05/22 - 12/05/22].
- Attended E-Vehicle Workshop, Madras Institute of Technology [07/05/22].
- Completed The Cloud Course, ICT Academy [19/02/24].
- Completed IoT & Electronics Course, Infosys [06/08/24].