

SHITAL MADHUKAR DESHPANDE

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SUMMARY

Aspiring Embedded Systems Engineer with strong expertise in C/C++ and embedded systems design. Skilled in real-time operating systems (RTOS), microcontrollers (ARM, Arduino), and peripheral programming. Proven track record in delivering innovative solutions to enhance performance and efficiency. Eager to contribute technical expertise and collaborative skills to your dynamic team.

EXPERIENCE

Embedded Engineer

Original Innovation LLP, Gurgaon. | [August, 2024] - Present

- Currently working on a networking switch, focusing on embedded systems development for enhanced connectivity and functionality.
 - Developed a webpage interface for the switch using HTML and CSS, enabling users to interact with and configure the device easily.
 - Previously worked on the D40001 human detection sensor, optimizing sensor accuracy and integrating it with embedded systems for real-time monitoring.
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EDUCATION

- **CDAC – Sunbeam Infotech, Pune. | 2023** CDAC PG Diploma in Embedded System Design.
62.8 %
 - **B. Tech - Electronics and Telecommunication (ENTC) | 2022** Government college Of Engineering, Yavatmal.
8.46 CGPA
 - **Higher Secondary Certificate (HSC) | 2018**
Maharashtra State Board of Secondary and Higher Secondary Education, Pune. 71.54 %
 - **Secondary School Certificate (SSC) | 2016**
Maharashtra State Board of Secondary and Higher Secondary Education, Pune.
89.20%
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TECHNICAL SKILLS

- Programming languages: Embedded C, C++.
- Operating Systems: Windows and Linux.
- Tools: STM32cubeide, VS code.
- Hardware Protocols: ADC, UART, SPI, I2C, CAN.

- Embedded Systems Microcontrollers (ARM, Arduino, BBB), Device drivers, Networking, peripheral programming and real time operating systems.
- Embedded Linux: Embedded Linux system, kernel modules, device drivers and system debugging.
- C programming: Proficient in C programming language, including control flow, data types, arrays functions and debugging.
- Data structures and Algorithms: Skilled in data structure implementation, algorithm, and complexity analysis.
- Sensor Technology: Human detection sensors (D40001), HC-SR04 ultrasonic sensor, LM393 speed sensor, LM35 temperature sensor.
- RTOS: Experience with real-time operating systems, including task scheduling.
- IoT and Network Protocols: MQTT, CoAP, Bluetooth, Ethernet, Wi-Fi, Zigbee.

PROJECTS

Project-1 (CDAC)

- **Name:** Vehicle entities Monitoring System Using CAN Protocol.
Description: This project consists of continuous monitoring of various mechanisms of vehicle like speed, distance and temperature of engine. Monitoring the speed of vehicle and displaying it on LCD. For the detection of distance of any object from vehicle is achieved by using an ultrasonic sensor, also the temperature sensor capable of detecting engine heat. All the entities are shown on LCD display and the communication is done with the help of CAN protocol.

Project-2 (B. Tech)

- **Name:** Arduino RADAR model using ultrasonic sensor for detection and ranging.
Description: This project is an object detection system using an ultrasonic sensor with Arduino. It measures the distance of stationary or moving objects within a 180° range using a servo motor. The sensor calculates distance based on echo time after a trigger pulse. Detected objects are displayed on an LCD screen, synchronized with the motor's movement, enabling efficient range and direction tracking.

COURSES

- Linux Device Driver Essentials
- CDAC - Embedded System Design
- Basic electronics and PCB designing

HOBBIES

- **E-Sports and Crafting:** Passionate about e-sports and dedicating time to crafting, blending strategic gameplay with creativity.
- **Artistic Pursuits:** Enjoy drawing and painting, with participation in competitions such as the Elementary Grade and Pidilite Drawing contests, along with expertise in rangoli making.

EXTRA-CURRICULAR

- **Volunteer Engagement:** Promoted scientific literacy at the Mobile Science Exhibition, Raman Science Centre, Nagpur.
- **Competitive Participation:** Competed in NCPA and ICAD, showcasing analytical skills.
- **Creative Competitions:** Participated in various drawing, painting and essay writing contests.

DECLARATION

I hereby declare that all the above information is true to the best of my knowledge and belief.

DATE: SIGNATURE:
