

Sayali Sudhir Maral

Bachelor of Technology

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| Course | College/University | Year | CGPA/Pct. |
|---|---|---------|-----------|
| CDAC in PG-DESD | Sunbeam Infotech Private Limited | 2023 | 62 |
| B.Tech. - Electronics & Telecommunication | SVERI College of Engineering, Pandharpur. | 2019-22 | 9.40 |
| Diploma - Electronics & Telecommunication | SVERI College of Engineering (POLY.), Pandharpur. | 2016-19 | 83.94 |

CAREER OBJECTIVE

Looking for an opportunity to join a company that values continuous learning and innovation, where I can contribute to the company's success while growing my skills and advancing my career.

TECHNICAL SKILLS

- **Programming Languages:** C Language, Basics of C++, Basics of Python.
- **Embedded Systems:** STM32F0/L0, ESP32S3, Arduino, 8051.
- **Communication Protocols:** UART, I2C, SPI, CAN, Modbus, USB, LoRa.
- **Peripheral Devices:** LCD 16X2, TFT ST7735, 7 Segment, ADC, DAC, Timers, BLE, DC motors, Servo motors, Different sensors.
- **Firmware Development:** Writing, debugging and optimizing firmware for embedded systems.
- **Software Tools:** STM32CubeIDE, Espressif IDE, VSCode, Xilinx ISE, Keil µVision, EEZ Studio.
- **Testing and Debugging:** Logic Analyzers, DSO, Multimeter, ST-Link.

WORK EXPERIENCE

- **Embedded Engineer – Stuffbits Technologies LLP, Hadapsar, Pune.** **March 2024 - ongoing**
 - Involved in firmware design and development for industrial monitoring and logging products.
 - Deployed and optimized embedded firmware for microcontrollers like STM32F0/L0, ESP32S3 in different projects.
 - Implemented communication protocols like I2C, SPI, MODBUS and UART for device interfacing.
 - Tested, analyzed, troubleshoot and validated various embedded systems to ensure product's stability and functionality.
 - Created detailed documentation for hardware test reports, procedures, and project's functionality.
 - Assisted in prototype development for proof-of-concept designs and accelerating product development cycles.
 - Collaborated with cross – functional teams for development, production and testing for embedded systems based on project requirements.

PROJECTS

- **Gas Detector with 7-Segment display** **May 2024-Aug 2024**

Developed a gas detection system that monitors various gases and displays real time concentration levels on a 7- segment display. Implemented sensor integration and data processing for accurate readings. Focused on user friendly graphical visualization and system reliability.
- **Gas Detector with TFT ST7735** **Oct 2024-Nov 2024**

Developed a gas detection system that monitors various gases and displays real time concentration levels on a TFT display. Implemented sensor integration and data processing for accurate readings. Focused on user friendly graphical visualization and system reliability.
- **Clean Room Monitor with TFT RA8875** **Nov 2024-Dec 2024**

Designed and developed a clean room monitor for real time monitoring of environmental parameters. Integrated with a TFT display which provides accurate measurements and visualization of pressure, temperature and humidity ensuring compliance with clean room standards.
- **Big Climate with TFT ST7735** **Oct 2024-Feb 2025**

Designed and developed a climate monitor for real time monitoring of environmental parameters. Integrated with a TFT display which provides accurate measurements and visualization of pressure, temperature and humidity ensuring compliance with clean room standards.
- **Digisleek with TFT ST7735** **Feb 2025-Feb 2025**

Designed and developed a monitor system for real time monitoring of environmental parameters. Integrated with a TFT display which provides accurate measurements and visualization of pressure ensuring compliance with clean room

standards.

- **Datalogger** **Feb 2025-March 2025**
Developed an IoT-based data logger using MQTT protocol to monitor and record electrical parameters such as voltage, current, active power, apparent power, total power, and reactive power. The system efficiently collects, transmits, and stores data for real-time monitoring and analysis, enhancing reliability in electrical field applications.
- **Industrial Automation using CAN** **July 2023-Aug 2023**
This project uses the CAN protocol to implement secure and reliable communication in industrial automation systems, ensuring safety and efficiency in environments requiring data accuracy and noise resistance.
- **Design of 1-bit CMOS full adder** **Oct 2021-Feb 2022**
Designed and implemented to create a fundamental digital circuit used for arithmetic operations. It uses CMOS technology for efficient power consumption and high-speed performance making it suitable for applications in microprocessors, microcontrollers, digital systems and so on.
- **Scrolling Display using GSM** **Sept 2018-Jan 2019**
This project enables remote updating of display content via SMS. A GSM module receives text message and updates the scrolling display in real time making it ideal for signage or public information systems.

CORE COMPETENCIES

Situation Adaptive, Helpful, Humble.