

Rushikesh Sanjay Nannaware

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Profile

Highly motivated **Embedded System Engineer** with a strong foundation in **Embedded C, C++**, and hands-on experience in **microcontroller programming**, **data structures**, and **hardware-software integration**. With practical knowledge in embedded solutions and firmware development, I am eager to contribute to innovative embedded solutions, leveraging my technical expertise and ongoing education.

Technical Skills

- Programming Languages: **Embedded C, Object-Oriented Programming (OOP)**, Basic **C++** and **Python**.
- **Data Structures**: Arrays, Linked Lists, Stacks, Queues.
- ARM Architecture: **Advanced RISC Machine (ARM)**.
- **Real-Time Operating System (RTOS)**.
- **Operating Systems**: Linux.
- Communication Protocols: **I2C, SPI, UART, GPIO**.

Project

Smart Traffic Management System

Duration: **1 months**

- Designed and implemented a dynamic traffic signal control system using **STM32** and **IR/ultrasonic sensors** to monitor traffic density.
- Prioritized **emergency vehicles** using **RFID technology**, allowing for real-time traffic flow adjustments.
- Integrated **UART communication** to send real-time traffic data to a PC for monitoring and debugging.
- Enabled **real-time updates** through **GSM/Wi-Fi modules**, transmitting traffic data to a cloud platform for remote access.

Home Automation System using STM32F4

Duration: **1 months**

- Developed a **home automation system** using **STM32F4** microcontroller to control lighting, fans, and security devices remotely.
- Integrated **Wi-Fi** connectivity with **ESP8266** for real-time control via a **mobile app** or **web interface**.
- Implemented **temperature and humidity sensors** (DHT11/22) to automate HVAC (heating, ventilation, and air conditioning) systems based on environmental conditions.
- Utilized **UART communication** for device data logging and remote monitoring via **PC**.

Movie Recommendation System using K-Nearest Neighbour (KNN) Algorithm.

Engineering Project

- Designed a movie recommendation system using **KNN algorithm in Python**, leveraging user preferences and ratings for personalized suggestions.
- Processed data from **two CSV files** (user ratings and movie details) and calculated similarity using metrics like **Euclidean distance** and **cosine similarity**.
- Optimized recommendation accuracy by fine-tuning **k-values** and experimenting with various distance metrics.

Experience

QA Manual Tester, Bajaj Finserv Pvt. Ltd.

May 2023 – Aug 2024

- **Gathered and analyzed project requirements**, creating detailed test cases that improved test coverage and ensured alignment with functional specifications. Execute manual tests, identifying and reporting defects, resulting in a reduction in post-release issues.
- Tracked Bug on **Azure DevOps**, reducing defect resolution time by coordinating with development teams for prompt resolution and re-testing.
- Conducted **regression testing** on updates, identifying critical bugs before release, ensuring product stability and preventing disruptions in production.

Educational Qualification

- **PG-DESD**, CDAC ACTS Pune, India (2024)
- **B.E. in Computer Engineering**, N.D.M.V.P. College of Engineering, Nashik, India (2017-2022) - **73.00%**