OMKAR ANKUSH KASHID

Electronics and Telecom. Engineer | Embedded Software Engineer | C-DAC

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Summary

With over 1 year of dedicated software development experience in the Embedded industry and 4 years of project development experience, including freelancing, I excel at designing complex systems and integrating control software. My robust skill set in programming languages such as Embedded C, C++, and Python, complemented by a track record of driving growth and reaching significant milestones, aligns with the dynamic needs of transformative embedded solutions.

Experience

Ingenious Engineering & Automation Pvt. Ltd.
Pune, Maharashtra

Embedded software engineer(trainee)
01 /2023 - 10/2023

- Hands-on training in SQL, SSRS, Node-Red, Arduino, HTML, CSS and IoT Fundamentals.
- Real Time Data storing and displaying on front end software.
- Developed Heavy lifting crane (HLC) monitoring system using IoT Hardware.
- Work as Front-end and Back-end support engineer for HTML, CSS and MYSQL.
- Coordinated the coding efforts using C, C++.

Learnal yaticstech academy Pvt. Ltd.
Pune, Maharashtra

Engineer trainee
01/2022 - 07/2022

- Doing various Projects on Atmega328, Atmega8A Controller.
- Various projects done using Node-MCU Arduino and Microcontroller..
- Learn IoT concepts.
- Embedded programing using Arduino IDE.

Skills

- Operating system - **Linux**, Windows, **RTOS**.
- Programming Languages - **Firmware development**, **C**, **Embedded C**, **C++, Python.**
- Development boards - **ESP32**, **STM32 Discovery board, STM32 NUCLEO board, Raspberry pi**, BeagleBone.
- Protocol exposure - **UART**, **I2C**, **SPI**, **CAN**, **MQTT**, etc.
- Concepts - RTOS, **ARM**, **Baremetal programming**, **embedded operating system**, **Linux device drivers**.
- Source control tool - **GIT**.

Projects

- STM32 BareMetalOS- Crafting from Scratch:

  Platform: Embedded Linux Development

  Description: Designed an STM32 OS kernel managing tasks efficiently. Defined specific tasks for different functions, ensuring smooth task switching and system monitoring. Demonstrated expertise in embedded systems development and OS fundamentals.

  Project Repository: https://github.com/Omkar7637/STM32-BareMetalOS-Crafting-from-Scratch

- Intelligent Guided Vehicle (IGV) Project:

  Platform: Embedded Linux Development

  Description: The Intelligent Guided Vehicle (IGV) project involves developing an autonomous vehicle designed for agriculture-based activities like seeding and crop cutting. The system utilizes modern AI and embedded electronics to operate effectively. This project is implemented using the BareMetal OS (BMOS) on STM32 microcontrollers. It's an Autonomous guided robot used in farms for crop cutting and seeding application. — **Applying for a Patent**.
  Project Repository: https://github.com/Omkar7637/Intelligent_Guided_Vehicle_IGV_on_BareMetalOS

- Ionizer Based MultipH Water Dispenser:

  Platform: Embedded System Design

  Description: The Ionizer Based MultipH Water Dispenser creates a home appliance that uses electrolysis to produce alkaline water pH 7.5, 8.5, 10.5 for health benefits and acidic water for skincare and plant care. The project involves developing a controller and ionizer circuit with outlet valves, offering customisation hydration for personal, fitness, hospitality, and wellness applications.

- Arduino based Gas Leakage Detection for Living Security.

  Platform: Electronic Circuit Design

  Description: The Gas Leakage Detection Smart System is an innovative safety solution developed to detect and prevent potential hazards caused by the leakage of Liquefied Petroleum Gas (LPG). The system leverages advanced technology to ensure residential and industrial safety by detecting gas leaks and taking immediate action to prevent accidents.

  IRJET Paper publish: International Research Journal of Engineering & Technology (IRJET)

- Scrolling display using neopixel LED matrix:

  Platform: Embedded System Design

  Description: Developed an LED Display System using NeoPixel technology and a 300 LED strip controlled by an Atmega328P microcontroller. Integrated USB to TTL converter for programming via serial port, enabling remote updates. Designed for modular expansion, suitable for colleges, public places, and digital advertising. Features real-time information display, eliminating latency, and environmental compatibility. Ensured reliable performance with a robust power supply and supporting hardware. Demonstrated expertise in embedded systems and microcontroller programming.

Education

Sunbeam Institute of Information Technology(C-DAC) — Pune, Maharashtra
Post Graduate Diploma in Embedded System Design (PG-DESD) — 03/2024 - 08/2024
| Percentage: **70.6** / 100

Savitribai Phule Pune University — Pune, Maharashtra
Bachelor of Engineering in Electronics and telecomm. Engineering — 01/2020 - 07/2023
| Percentage: **75** / 100

Maeer's MIT Polytechnic, Pune — Pune, Maharashtra
Diploma in Electronics and Telecommunications Engineering — 08/2017 - 12/2019
| Percentage: **86** / 100

Declaration

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

Date: Signature: