Shiva K V

Project Engineer – Embedded Systems (R&D)

✉ shiva20160492025@gmail.com ☎ 9945375628 ◉ Bangalore in Linkedin 🔗 Portfolio

PROFILE

Building a career in the **embedded systems domain**, leveraging hands-on experience with **microcontrollers**, **real-time systems**, and **programming** to develop **reliable, high-performance solutions**. Passionate about **innovation** and eager to contribute to **challenging projects** that push **technological boundaries**, while continuously **learning and evolving** in a dynamic, team-driven environment.

PROFESSIONAL EXPERIENCE

Project Engineer – Embedded Systems (R&D)   02/2025 – present
Ecoprosus India Pvt.Ltd 🔗   Bangalore, India
- **Developing** IoT-based **smart city projects**, including **Belagavi Smart City, Shivamoga smart City Etc**.
- **Implementing** communication protocols (**UART, I2C, SPI**) for seamless device integration.
- **Interfacing** and configuring various **sensors** for real-time data collection.
- **Collaborating** with hardware and software teams for **efficient system integration**.
- **Managing** local network operations and **optimizing system performance**

Network design Engineer   03/2023 – 03/2024
Pixel Softek Private Limited 🔗   Bangalore, India
- Designed **HFC/RFC cable networks** for various **residential and commercial applications**, including **SMB, SDU, and Forced Relocate Design**.
- Utilized **SpatialNet, AutoCAD, and Iris tools** to ensure compliance with customer specifications.
- Developed **optimal design solutions** tailored to client requirements in the **USA**.

Data Analyst Intern   02/2022 – 03/2022
Prosaf Appzenith software solution Pvt.Ltd   Bangalore, India
- Gained foundational knowledge of **data analysis concepts** and techniques.
- Learned **Excel, SQL, and Python (Pandas, NumPy)** for data manipulation.
- Worked on basic **data cleaning and preprocessing** tasks.
- Understood key concepts of **data-driven decision-making**.

SKILLS

- Programming Languages: C, C++ (OOP), Python, Linux, and Linux Internals
- Embedded Systems: GPIO, LCD interfacing, Timers, Counters, Interrupts
- Microcontrollers: ESP32,PIC18F4580, UART, SPI, I2C, CAN protocols and TCP/IP protocols
- Tools and Platforms: Linux (Ubuntu), MPLAB, GCC, XC8, Vim, Makefiles, AutoCAD, Anaconda, spider.

LANGUAGES

Languages: Kannada (Native)   English (Proficient)

Telugu(Advanced)

CERTIFICATES

Emertxe certified Embedded Professional(ECEP)   **Data Analytics with Python**   • **Arduino and Raspberry Pi Trained**

INTERESTS

• Interests: Automotive automation │ IoT │ Embedded application and Robotics

PROJECTS

Car Black Box
- Designed a car black box system using the PIC18F4580 microcontroller to display real-time events and speed (0–99) on a CLCD, controlled via a potentiometer.
- Implemented UART and I2C protocols for communication and data transfer within the system.

Image Steganography
- Developed a secure text encoding and decoding system utilizing LSB (Least Significant Bit) steganography.
- Improved data privacy by embedding sensitive information within image file bytes.

Inverted Search
- Built an inverted index for fast document searches with efficient memory usage.
- Used advanced hashing algorithms for optimal performance.

Address Book Management System
Designed and implemented an **Address Book Management System** in **C**, utilizing **data structures** for efficient **storage, retrieval, and management** of contact details.

Social distance detection system using AI with Deep learning(Python).
- Developed an AI-powered system leveraging deep learning (Python) for real-time detection and monitoring of social distancing

Automated Room Temperature Controller(Arduino)
- Developed a **room temperature control system** using **Arduino** for **automated climate regulation** in living spaces.
- Emphasized **user comfort** and **energy efficiency** through intelligent control mechanisms.

Mini-Shell
- Developed a custom shell (msh) in C with command execution, customizable prompts, special variables, and built-in commands.
- Implemented signal handling for process control and external command execution using child processes.

COURSES

Advanced Embedded system   04/2023 – 01/2024
Emertxe information technologies   Bangalore, India
- Currently pursuing **advanced training in Embedded Systems**, focusing on **C programming, microcontroller interfacing, and real-time applications**.
- Gaining hands-on experience with **PIC microcontrollers** and communication protocols like **UART, SPI, I2C, and CAN**.
- Developing **embedded solutions** with an emphasis on **hardware-software integration and debugging techniques**.
- Learning industry best practices for **firmware development, testing, and deployment** on embedded platforms.

EDUCATION

- **B.E. in Electronics and Communication Engineering (ECE)**   2019 – 2022
Government Engineering College K.R pet(GECK)   Mandya, Karnataka, India

- **Diploma in Electronics and Communication Engineering (ECE)**   2016 – 2019
Government Polytechnic College   Karnataka, India

- **Class X(SSLC)**   2015 – 2016
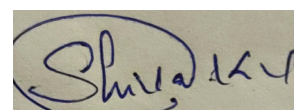*Government High School(KSEEB)*   Karnataka, India

DECLARATION

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

Shiva K V