

# SHIVAM SINGH

## Embedded Firmware Developer

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## Summary

Talented software development professional with experience in C/C++ and Python. Consistent in delivering clean, error-free, reliable code to meet current or expected needs. Well-versed in software trends and confident in multiple languages, frameworks and programming tools. True team player with strengths in adaptability and accuracy. Exceptional active listening talents with the ability to take orders. Logical and systematic with a great eye for detail.

## Skills

**Languages:** Embedded-C, Python, C++

**Microcontrollers:** STM32, NRF, ESP32, ESP8266

**Protocol:** Bluetooth Low Energy (BLE), WiFi, I2C, UART, SPI, I2S, iBeacon

**Technologies:** Embedded System, FreeRTOS, IOT, Git

**Tools:** Stm32cubeIDE, Segger Embedded Studio, ESPIDF, Visual Studio, Arduino

## Experiences

### Singularity Labs Pvt. Ltd.

Ahmedabad, Gujarat

Embedded Firmware Engineer

11/2022 - Present

Responsibilities:

- Collaborated across technical and design teams to produce innovative software applications for a low-powered battery device.
- Integrating and validating new product designs and optimize I/O performance.
- Developed sensor-hub firmware for an asset tracker and measured its performance using pre-agreed metrics.
- Analyzing and enhancing power saving for durable battery life.
- Evaluated functionality and performance of existing software to best target new releases.
- Utilized a variety of sensors, including Accelerometer, Gyroscope, Magnetometer, Thermopile, Microphone, Pressure and Temperature.

### VEGG

Surat, Gujarat

Embedded Firmware Engineer

02/2022 - 10/2022

Responsibilities:

- Designed and implemented firmware for a home automation devices and systems from requirements to production and commercial deployment.
- Engaged in the implementation of BLE and WiFi technologies for an IoT-based Smart Home product.
- Design, develop, code, test and debug system software.
- Analyzed and enhanced efficiency, stability and scalability of system resources by 60%.
- Wrote clear user guidelines detailing software programme features, functionality and settings.

## Education

### Government Engineering College

Modasa, Gujarat

B.E. in Electronics & Communication Engineering | CGPA: 8.38

07/2018 - 05/2022

- Elective Subjects: Python Programming, Embedded Systems, Microcontrollers, IoT.
- Served as the leader of an IoT club during last two years of my college tenure.
- Interned as a "VFD Maintenance Intern" at IndianTech Drive and assisted senior technicians in troubleshooting and repairing VFD systems in manufacturing equipment.
- Designed and developed a voice and BLE controlled home automation system as part of a design engineering project. The project aimed to create a smart and efficient home automation solution that could be controlled using both voice commands and a mobile app through Bluetooth connectivity.

## Interests & Hobbies

Avionics

Electric Vehicles

Internet of Things

Chess

Reading

Volleyball