

# Rohit Singh

Embedded Systems & IoT Developer | Hardware-Software Integrator

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Portfolio: [https://nyxparadox.github.io/rohit\\_singh-portfolio/](https://nyxparadox.github.io/rohit_singh-portfolio/)

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## TECHNICAL PROFILE

ECE undergraduate focused on Embedded Systems, IoT infrastructure, and realtime hardware-software integration.

Experienced in building deployable embedded systems using ESP32, Firebase, Flutter, and cloud-connected architectures and practical deployment.

Interested in intelligent automation, computer vision, and AI-integrated embedded systems.

## TECHNICAL SKILLS

**Programming:** C++, Python, Dart

**Embedded & Hardware:** ESP32, Arduino, Embedded C/C++, GPIO, UART, I2C, Sensor Integration.

**Software:** Flutter, OpenCV, NumPy, MATLAB

**IoT & Cloud:** Firebase, Cloud Synchronization, Realtime Communication Systems

**Systems & Tools:** Linux, Git, GitHub, Arduino IDE

## PROJECTS

### 1. Realtime Notice Broadcasting System

ESP32 • Flutter • Firebase • IoT

- Architected and developed a deployable realtime notice broadcasting infrastructure for institutional communication.
- Integrated ESP32 hardware, Firebase cloud services, and Flutter application into a synchronized embedded ecosystem.
- Designed low-latency notification workflows for realtime message delivery and scalable deployment.

### 2. Smart Doorbell Security System

ESP32-CAM • Flutter • Firebase • Python • Embedded Systems

- Engineered an IoT-based visitor monitoring and realtime security notification system.
- Developed cloud-connected embedded workflow using ESP32-CAM and Firebase synchronization.
- Built Flutter mobile application for remote visitor monitoring and realtime alerts.

## EDUCATION

### B.Tech — Electronics & Communication Engineering

ABVGIET Pragati Nagar, Shimla (HPTU) | Expected Graduation: 2028

**Schooling:** Jawahar Navodaya Vidyalaya (JNV), Bilaspur, HP, 174001

## ENGINEERING STRENGTHS

System Architecture Design • Hardware-Software Integration • Realtime Workflow Engineering • Scalable Embedded Infrastructure

## AREAS OF INTEREST

Embedded Systems • Intelligent Automation • IoT Infrastructure • Computer Vision • Robotics