

# AKSHIT KHARE

## ASSISTANT FIRMWARE ENGINEER

---

📞 7776906226

📍 Ranchi RN 834001

✉️ [khareakshit56@gmail.com](mailto:khareakshit56@gmail.com)

---

### ABOUT ME

---

Embedded Firmware Engineer with 1.4 years of experience in firmware design, debugging, and hardware–software integration. Skilled in Embedded C programming for microcontrollers (Renesas RL78/Rx) and communication protocols such as UART, I<sup>2</sup>C, SPI, Modbus, and NFC. Adept at developing reliable and scalable embedded solutions aligned with performance and industry standards.

### EDUCATION

---

**Dr. D.Y Patil Institute of Technology**

B.E – Electronics & Telecommunications (2020–2024) | CGPA: 8.89

**DAV Kapildev Public School**

12<sup>th</sup> CBSE (2020) | 74.83

**DAV Kapildev Public School**

10<sup>th</sup> CBSE (2018) | 84.3

### EXPERIENCE

---

**Firmware Developer**

**General Industrial Controls Private Limited- Pune, India**

15 July 2024--Current

**Project details:**

**DC Insulation Monitoring Relay**

**Role: Embedded Firmware Developer & Validation Engineer:**

- Analyzed product requirements, competitor specifications, and technology trends to develop design goal.
- Developed and implemented firmware application code in Embedded C for relay control, LED indication, and alarm.
- Understood the hardware architecture of the IMR by studying schematics and technical documents.
- Performed design validation testing, including RMI (Radiated Magnetic Interference) and EMC (Electromagnetic Compatibility) tests to ensure compliance with industry standards.

**NFC based Timer configuration System.**

**Role: Android Developer & Embedded**

- Designed and developed an Android application to configure timer settings using NFC in pass-through mode, eliminating the need for traditional potentiometer-based adjustment.
- Implemented NDEF format and raw data writing to NTAG devices using Type 5 (NFC-V) tags, enabling both read and write operations over NFC.
- Utilized pass-through communication between the app and NFC tag to directly interact with the microcontroller's I<sup>2</sup>C interface.
- Understood and analyzed the firmware implementation of NFC pass-through mode, enabling effective integration and debugging during development
- Enabled users to set precise timer values via mobile app, improving usability and reducing hardware complexity

## Technical Skills:

---

- Programming Languages: C, Embedded C, Java (Android), Python.
- Microcontrollers: Renesas RL78, Rx series, STM32.
- Communication Protocols: UART, I<sup>2</sup>C, SPI, Modbus, NFC.
- Firmware Tools & IDEs: e<sup>2</sup> studio, CS plus, STM32 Cube.
- Version Control: Git.
- Documentation: Doxygen.

## Languages

---

- English
- Hindi

## Hobbies

---

- Cooking
- Reading technical articles
- Travelling

## Declaration:

---

I hereby declare that the details furnished above are true to best of my knowledge and belief.

Place: Pune, Maharashtra.

Akshit Khare