

# RAHUL SHRIDHAR BANSOD

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[GitHub: https://github.com/rbansod5/Embedded-Projects.git](https://github.com/rbansod5/Embedded-Projects.git)

## SUMMARY

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A highly motivated Engineer with 1 Year experience working on real-time market data systems at the National Stock Exchange (NSE). Skilled in implementing data recovery mechanisms for dropped tick data in multicast systems, leveraging a strong foundation in embedded systems and software development. Proficient in programming languages like C, C++ as well as communication protocols such as UDP, TCP/IP, UART, I2C, SPI. Experienced with embedded systems development on microcontrollers like ARM, Intel 8051, AVR, RISC-V and PIC, and proficient in using various IDEs and debugging tools. Strong problem-solving abilities, with expertise in Linux internals, multi-threading, and scripting in Bash. Adept at working in collaborative environments and committed to continuous learning and development in the field of embedded systems and real-time applications.

## Work History

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**Trainee Engineer - Remiges Technologies Pvt. Ltd. - Navi Mumbai, India**

**Feb 2024 to Jan 2025**

Working at Client Location National Stock Exchange at BKC Mumbai - 400070

### Project Name: Multicast Tick by Tick (NSEIX)

- The Project Involves handling real-time market data, which was multicast via UDP to a Member Server.
- Implemented a mechanism to recover dropped tick data from the Post Trade Market.
- Store smooth end data (packet by packet) into recovery server in .dat file with date and time stamp
- smooth end data sends to member server to access by FII, DII and Brokers.
- Maintaining auxiliary Relay server and PT server.
- Sanity using TWS(Trading Work Station).

Protocols and Technologies: C | C++ | Shared memory | UDP | TCP/IP | Bash Scripting

## Skills

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- C | C++ | DSA | Embedded C (Bare metal and Hardware Abstraction Layer) | Bash Shell Scripting
- Intel 8051 | ARM7-LPC2148 | Cortex-M3 LPC1768 | RISC-V (CH32V003F4U6) | PIC16F887 | Arduino UNO
- LED | SWITCH | KEYPAD | LCD | DOT MATRIX DISPLAY | RF MODULE | LM35 | Bluetooth | RELAY | EEPROM
- UART | SPI | I2C | ADC | RTX51 Tiny RTOS
- IDE : GCC | GDB Debugging | uVision4/5 | Embeetle IDE | Proteus Simulation
- Linux Internals : System Call | Signals | IPC(Pipe, Fifo, Message Queue, Shared memory, Semaphore) | Multi Threading
- TCP/IP | UDP | Version Control (GitHub)

## Other Projects

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1. Customer Product Billing System (C Language | DSA)
2. Diagnostics 8051/LPC2148/LPC1768 Microcontroller Board (LED | KEYPAD | LCD | SWITCH | UART)
3. moisture control system for greenhouse using Arduino UNO (Moisture Sensor, Motor Pump-12V, Relay)

## Education

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**Vector India Hyderabad, India | Post Graduate Diploma Advanced Embedded System Course April 2023 - January 2024**

DETAILS VECTOR PROJECT

Title : MULTIPURPOSE E-CARD SYSTEM Based on ARM7 LPC2148 Micro-Controller

[https://github.com/rbansod5/Embedded-Projects/tree/389282d73c813439a0d8b543cf77e2b7cf3eb78a/RFID\\_CARD](https://github.com/rbansod5/Embedded-Projects/tree/389282d73c813439a0d8b543cf77e2b7cf3eb78a/RFID_CARD)

**Priyadarshini College Of Engineering Nagpur, India | Electrical Engineering (Electronics and Power) November 2020**

Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur.

CGPA : 8.13 / Percentage : 73.80%

DETAILS ACADEMIC PROJECT:

Title: REMOTE MONITORING OF EARTHING SYSTEM

(<https://ijarcce.com/wp-content/uploads/2020/05/IJARCCE.2020.9421.pdf>)

**Samarth Jr. College Lakhani | Maharashtra, India | HSC (12th Std.) PCMB February 2014**

**Samarth Vidyalyaya Lakhani | Maharashtra, India | SSC( 10<sup>th</sup> Std.) Science March 2012**

## Personal Information

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Gender : Male

Nationality : Indian

Languages Known : English, Hindi, and Marathi

Permanent Address : Murmadi/Sawri Ward No.4 Behind Gov. Hospital Lakhani Dist:- Bhandara 441804