

RAHUL SHRIDHAR BANSOD

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[LinkedIn](https://www.linkedin.com/in/rahul-bansod-baa0a0148/): <https://www.linkedin.com/in/rahul-bansod-baa0a0148/>

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

SUMMARY

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, and 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

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 smoothened data (packet by packet) into recovery server in .dat file with date and time stamp
- Smoothened data sends to member server to access by FII, DII and Brokers.
- Maintaining auxiliary Relay server and PT server.
- Convert bash shell scripting into C programming.
- Sanity using TWS (Trading Work Station).

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

Skills

- C | C++ | DSA | Embedded C (Bare metal and Hardware Abstraction Layer) | Bash Shell Scripting | GTK+ | Python
- Intel 8051 | ARM7-LPC2148 | Cortex-M3 LPC1768 | CH32V003 | PIC16F887 | AVR Atmega16 | ESP32-C6 | ESP8266
- LED | SWITCH | KEYPAD | LCD | DOT MATRIX DISPLAY | RF MODULE | LM35 | RELAY | EEPROM
- UART | SPI | I2C | ADC | MODBUS-RTU | WIFI | Bluetooth
- IDE : GCC | GDB Debugging | uVision4/5 | Embeetle IDE | Arduino IDE | Proteus Simulation
- Linux Internals : System Call | Signals | IPC(Pipe, Fifo, Message Queue, Shared memory, Semaphore) | Multi-Threading
- TCP/IP | UDP | Version Control (GitHub) | FREE RTOS | RTX52 Tiny

Other Projects

- Customer Product Billing System (C Language | DSA)
- Diagnostics 8051/LPC2148/LPC1768 Microcontroller Board (LED | KEYPAD | LCD | SWITCH | UART)

Education

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

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 Vidyalaya Lakhani | Maharashtra, India | SSC (10th Std.) Science

March 2012

Personal Information

Gender : Male

Nationality : Indian

Languages Known : English, Hindi, and Marathi

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