

Singam Naresh

Bengaluru, Karnataka | 9515855625 | inareshofficial@gmail.com | linkedin.com/in/singamnaresh
github.com/Nareshreddysingam

PROFILE SUMMARY

Entry-level Software Engineer skilled in **C, C++, Linux, Operating Systems, Multithreading, IPC, and Networking**. Experienced in building diagnostic systems, debugging large applications, and developing real-time tools. Additional backend experience in **Java, Spring Boot, and MySQL**. Focused on embedded systems, defence-grade software, and high-reliability system development.

TECHNICAL SKILLS

Programming: C, C++, Java, Shell Script

Operating Systems: Linux (Processes, Threads, Signals, Memory, File I/O), OS Concepts, VxWorks/QNX basics

Multithreading & IPC: POSIX Threads, Mutex, Semaphores, Pipes, Shared Memory, Message Queues

Networking & Protocols: TCP/UDP, Serial Communication, Ethernet, VLANs, ModBus/NMEA basics

Tools: Git, MySQL, Spring Boot, Postman, Jira, Eclipse, VS Code

Strengths: Debugging, Diagnostics, Root Cause Analysis, System Testing

PROJECTS

Real-Time Diagnostic & Error Monitoring System (C/C++, Linux)

2025

- Built a real-time diagnostic engine for system health monitoring and fault detection.
- Implemented Linux syscalls, signals, timers, and custom logging with severity levels.
- Developed CLI tools to trace deadlocks, crashes, and memory misuse.
- Used Shared Memory and Message Queues for cross-module alerts.

Multithreaded Sensor Data Logger (C++, Linux)

2025

- Created a real-time sensor logger using POSIX threads and synchronization primitives.
- Implemented thread-safe queues, mutexes, and Pipes-based IPC.
- Reduced logging latency by 27% using a circular buffer and optimized I/O.

Serial & Ethernet Communication Simulator (C++)

2025

- Simulated serial and Ethernet-based communication using TCP/UDP sockets.
- Implemented ModBus/NMEA-like packet formats with error detection.
- Added packet loss handling, retries, and reconnection logic.

INTERNSHIP EXPERIENCE

Backend Developer Intern – Zymo Cars & Rentals

2025

- Developed backend modules using Java, Spring Boot, and MySQL.
- Debugged API failures and optimized database queries.
- Worked with Git, Linux servers, and Postman for testing.

CERTIFICATIONS

NPTEL – Introduction to IoT: Embedded Systems & Smart Technology

2024

Accenture Developer Virtual Simulation – Software Engineering

2024

EDUCATION

B.Tech – Electronics and Communication Engineering

2020–2024

Sri Venkatesa Perumal College of Engineering and Technology

CGPA: 6.9