

HARIHARAN C

Networking Engineer | 5G & Wireless Sensor Networks | IoT Systems
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PROFILE SUMMARY

Electronics and Communication Engineering graduate (2026) with a strong foundation in computer networking, 5G network architecture, and Wireless Sensor Networks (WSN). Hands-on experience with IMSI-based subscriber authentication (AMF/AUSF), ESP32/IoT sensor networks, and network protocol simulation using NS3. Complemented by full-stack development internship experience integrating REST APIs and databases. Strong analytical and problem-solving skills, eager to apply networking fundamentals in a Network Engineer role.

CORE NETWORKING SKILLS

Networking & Protocols: 5G Network Architecture (AMF, AUSF, IMSI Authentication), Wireless Sensor Networks (WSN), Wi-Fi, TCP/IP fundamentals, REST API, Graph API
Network Simulation & Tools: NS3 Simulator, Wireshark-level protocol concepts, Postman, MS Excel
Embedded & IoT Networking: ESP32, Arduino IDE, Blynk/Cloud Monitoring, Embedded C++, 8051 Microcontroller
Programming: Python, Java (Basic), Embedded C++, HTML, CSS, JavaScript
Databases: MySQL, MongoDB Atlas
Tools & IDE: Visual Studio Code, IntelliJ IDEA, GitHub, MATLAB

WORK EXPERIENCE

Full Stack Development Intern, SBV Technologies

Aug 2025 – Oct 2025

Tech Stack: Java, HTML, CSS, JavaScript, Bootstrap, MySQL, REST API, GitHub

- Developed responsive full-stack web applications, integrating MySQL databases and RESTful APIs used for client-server communication, while collaborating with the development team.

PROJECTS

Fault Detection and Data Aggregation Using Wireless Sensor Networks

2024 – 2026

Tech Stack: ESP32, Arduino IDE, Embedded C++, NS3, IoT, Wireless Sensor Networks

- Designed and implemented an IoT-based Wireless Sensor Network using ESP32 nodes for real-time fault detection, data aggregation, and environmental monitoring across multiple sensor nodes.
- Simulated network behavior and node communication using NS3 to evaluate fault-tolerance and data reliability.

Subscriber Profile Management System (5G IMSI Authentication)

2024 – 2026

Tech Stack: Python, HTML, CSS, VMware, 5G Network Architecture

- Built a 5G subscriber profile management system implementing IMSI-based authentication using AMF and AUSF network functions for secure subscriber verification and communication.
- Worked with core 5G network architecture concepts to model authentication and mobility management flows.

EDUCATION

Bachelor of Engineering – Electronics & Communication Engineering

Prince Shri Venkateshwara Padmavathy Engineering College, Chennai (Autonomous) | 2022 – 2026 | CGPA: 7.3/10

Higher Secondary Certificate (HSC)

ST Paul Matric Higher Secondary School, Kurinjipadi | 2021 – 2022 | 69%

CERTIFICATIONS & TRAINING

- 5G Technology – Vaan Megam Networks
- Embedded Systems and IoT – IITM Pravartak Technologies Foundation / Shakra Innovations
- UI/UX Design Internship Training
- NPTEL: Research Methodology, Design Thinking & Innovation