

# Sachin Kumar

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## PROFESSIONAL SUMMARY

Test Engineer with hands-on experience in 5G wireless communication, telecom testing, and protocol stack analysis. Proficient in analyzing signaling procedures and debugging network issues using tools like QXDM and QCAT. Demonstrated ability to improve testing efficiency and accuracy by automating routine test processes with Python. Strong foundation in LTE/5G NR, network KPIs, and RF troubleshooting. Passionate about delivering high-quality results in collaborative, fast-paced engineering environments.

## TECHNICAL SKILLS

**Wireless Technologies:** 5G NR (SA/NSA), LTE, VoNR, Call Setup, Mobility Management, RRC/NAS Protocols

**Tools & Automation:** QXDM, QCAT, Wireshark, Python, ADB, Git, Jira

**Testing Areas:** Protocol Testing, Field Testing, Log Debugging, Throughput Analysis, RF Layer Evaluation

**Networking Concepts:** PHY/MAC/RLC/PDCP Stack, Network KPIs, SNR, RSRP/RSRQ, Packet Loss, Handover

**Process Knowledge:** Test Strategy, Root Cause Analysis, Issue Tracking, Agile, CI/CD Exposure

## PROFESSIONAL EXPERIENCE

### Test Engineer

Jan 2024 – Present

Marquis Technologies – Bangalore, India

- Conducted testing of 5G NR features, ensuring compliance with protocol stack layers including RRC, NAS, PDCP, and MAC.
- Used QXDM and QCAT to collect and analyze modem logs for attach, detach, and mobility events across NSA and SA modes.
- Developed automation scripts using Python to generate test reports, reducing manual data processing time by 20%.
- Troubleshoot signaling errors related to bearer setup, cell selection, random access procedures, and call drops.
- Collaborated with software, RF, and QA teams to validate network performance under real-world customer scenarios.
- Documented test plans, logged issues in Jira, and tracked defects through sprint cycles.
- Simulated customer environments and field conditions to replicate issues and verify firmware fixes.

## EDUCATION

### Bachelor of Technology (B.Tech) in Computer Science

Jun 2019 – Jun 2023

Vidya Vihar Institute of Technology, Bihar

### Senior Secondary (XII), Science Stream

2016 – 2018

S.N.S.Y College (BSEB Board), Bihar

## PROJECTS & HIGHLIGHTS

- Built a Python tool to analyze QXDM logs and extract KPIs such as RSRP, SINR, and throughput statistics for regression testing.

- Reduced network issue triaging time by creating reusable test scripts for NSA to SA mobility handover validation.
- Participated in field testing campaigns across multiple bands (n78, n41), contributing to test coverage and log collection.
- Delivered recommendations that led to call setup success rate improvement during device certification.