SUJIT KUMAR MOHANTY

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Senior Engineer

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Experience Summary

Senior Engineer at **Larsen & Toubro Technology Services** Limited with 1 year 8 months experience in wireless LTE, 5G NR modem log analysis, debugging, validation and integration.

Engineer at **Sasken Technologies** Limited with 4 years experience in LTE modem protocol log analysis, debugging and wireless systems validation.

Professional Summary

- 5 years 8 months of experience in wireless cellular modem protocol log analysis, debugging.
- Experience on Qualcomm and Intel wireless cellular modems and platforms.
- Strong experience in LTE 3GPP specs, protocols (NAS, RRC, PDCP, RLC, MAC, PHY)
- Working knowledge of 5G-NR (NSA/SA)(Sub6/mmWave), end-to-end LTE call flows and RAN.
- Working experience in log analysis tools like QXDM, QCAT, Wire shark and STT.
- Worked on LTE network test simulators like R&S CMW 500, Anritsu 8475B .
- Working experience on software development and debugging tools (IDEs, build systems, Git)
- Experience in UE modem validation, root cause analysis of protocol logs and debugging.

Skills

Domain	4G-LTE, 5G-NR
Tools	QXDM, QCAT, Wire shark, STT, Smart Studio (Anritsu 8475B), CLA Automation Tool, SharePoint, Git, Gerrit, R&S CMW 500
Defect Tracking	Jira, Bugzilla, Inel-UTP, Qualcomm-creatpoint-Salesforce
Programming Skills	C and Python

Professional Work Experience

1. SOMC - Qualcomm Modem LTE/ 5G NR Protocol Log Analysis and Debugging

Employer: L&T Technology Services Limited

Duration: March 2019 to Present

Role: Senior Engineer

Tools: QXDM, QCAT

Project Details:

Objective of my project work is Sony mobile- Qualcomm modem software protocol log-analysis, bug fixes, validation of modem software with latest Qualcomm chipsets and modems targeted to release in North American, European and Japanese operators. Analysis debugging involved for issues related to registration, cellular connectivity, call processing, carrier aggregation, roaming, handover, access stratum issues (MAC/PHY/RRC), VoLTE calls, call processing, throughput, RLF. Debugging issues involved for protocol layers in NAS, RRC, PDCP, RLC, MAC and PHY using QXDM, QCAT (Qualcomm Tools). Debugging, Bug fixing and integration-development activity involves for customer field test and lab test issues.

Responsibility:
- Perform protocol log analysis for modem functionality issues in different layers (like NAS, RRC, PDCP, MAC, PHY) and find their root cause.
- Debug and resolve issues providing fixes as per Network Operator requirements.
- Debugging of Customer issues and field issues with knowledge on 3gpp specifications.
- Monitor defects using a JIRA BUG tracking system and QC case to track bug resolution.
- Plan schedules and strategies in accordance with project scope or delivery dates.
- Debugging by reviewing configuration files, logs to determine breakdown source.
- Compliance verification as per Qualcomm modem & Sony mobile System Design.
- Collaborating with teams across protocol stack for testing and integration
- Propagation of fixes from other modules and new platforms.
- Preparing test binaries as per the given fixes or code changes.
- Verification for committed bugs testing of engineering and test builds.

Achievements:
- Analyzed and debugged 70+ critical issues and helped achieved release on time.
- Received 'SPOT AWARD' for working on blocker issues and resolving issues for customer release.

2. Intel Cellular LTE Protocol Log Analysis, Validation and Debugging

Employer: Sasken Technologies Limited
Duration: September 2016 to March 2019
Role: Engineer
Tools: Wire shark, STT, CLA, Anritsu 8475B, R&S CMW 500
Project Details:
The objective of project work was protocol analysis of LTE functionality issues of Intel LTE modem with Intel hardware platforms for WWAN connectivity. As a part of modem related activities performing log analysis and validation for LTE functionalities like Connectivity, Carrier Aggregation, Roaming, Handover, IRAT, Messaging, Browsing, and Redirection. This involved use of network simulators like R&S CMW 500, Anritsu 8475B, and Agilent for debugging and analysis of LTE call flows with protocol knowledge in NAS, RRC, PDCP, RLC, MAC, and PHY.

Responsibility:
- Performing Log Analysis for modem functionality issues.
- Debugging the issue for root cause analysis.
- Performing modem compatibility validation on NW simulator for issue fixes.
- Performing the automation test cases using the Intel CLA tool.
- Monitor defects using a JIRA BUG tracking system, report and track bug resolution.
- Perform protocol log analysis and debugging procedures by reviewing configuration files, logs to determine breakdown source.
- Compliance verification as per Intel design standards.
- Conformance test for Modem Behavior as per Network Operator requirements
- Design validation test plans, scenarios, modify scripts and procedures
- Plan schedules or strategies in accordance with project scope or delivery dates.

Achievements:
- Analyzed, validated and debugged 100+ issues and achieved beta releases for customer.
- Awarded 'Team of the Quarter' for delivery of 14 products with Intel 7360 modem in a single quarter.

3. Inmarsat ISAT phone2 Development and Validation Project

Employer: Sasken Technologies Limited
Duration: February 2015 to September 2016
Role: Engineer
Project Details:

The objective of this project work was validation and Log analysis of Inmarsat satellite ISAT phone2.1 for protocol and functionality issues, which includes different features like SMS, voice call, call barring, call divert, personal alert, voice and data call management, mobile tracking, test case designing, network management, DSP and MCU logs analysis, NE scripting and automation python scripting and automation testing for stress scenarios.

Responsibility:
- Monitor software defects using a bug tracking system, report and track bug resolution.
- Plan test schedules or strategies in accordance with project scope or delivery dates.
- Participate in product design reviews to provide input on functional requirements.
- Python automated test scripts for new test scenarios.
- Visit beta testing sites across the globe to evaluate device performance.
- Perform Log analysis, Investigate customer problems referred and provide technical support for Bug fixing.

Achievements:
- Worked on 100+ BUGs and contributed towards the maturity of the major features.
- Awarded 'Team of the Quarter' for highest rating of customer during the acceptance.
- Received 'SPOT AWARD' for solo execution of acceptance activity at client locations in Indonesia.

Education

- **B.Tech** in **Electronics and Telecommunication Engineering** from **Biju Patnaik University of Technology,** Odisha, India with **CGPA: 7.89 – Year: 2014**
- **12th Science,** 67.3 % **– Year: 2010**
- **10th Science,** 84.8 % **– Year: 2008**

Professional Certifications

- BSNL Certification Course on Mobile Communication

Personal Details

- **Date of Birth**   :   1st September 1992
- **Gender**   :   Male
- **Language Known**   :   English, Hindi and Odia
- **Hobbies**   :   Photography, Travelling, Cooking and Teaching

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Available For Relocation

I certify that the information furnished above is factually correct and subject to verification by concerned authority.

Sujit Kumar Mohanty