SAYON GHATAK

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# Summary

9+ years' Experience in telecommunication domain as a **LTE/NR** Device & ORAN Testing Engineer. Good working knowledge on **LTE/NR** Protocol **NAS, RRC, PDCP, RLC, MAC, PHY**.. Worked with TBS, Key sight UXM 5G, TM500, Anrithsu wireless platform as well as W1 setup. KPI TESTING and PROTOCOL Testing and Log analysis for LTE. Experience in testing LTE-CSFB, X2- Handovers, Power control parameters, Cell reselection parameters and Carrier Aggregation (CA). Good understanding of end-to-end call flow from UE to eNB/gNB. Knowledge of LTE Attach Call flows, PRACH Procedures, PDCCH. Worked extensively on finding the bugs and track it to closer using tools like QXDM, Wireshark with documentation report.

Experience on different methodology like Sanity, Regression, Validation, and Device Field testing for wireless modems. GTP-C, GTP-U, Diameter,S1-AP and X2-AP Protocol functionality Automation testing in Robot Framework in Ride editor with selenium library

# Skills

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| * LTE, NR * Protocol worked: LTE, NR (NAS, RRC, PDCP, RLC, MAC, PHY) * Test Automation * Design Verification * Agile Methodologies * Testing Tools: Genex Probe, Genex Assistance, TEMS, XCAL, QCAT, QXDM, Wireshark, CMW500, Test Factory, QCAT, E500, TMA * Operating System: Linux, UNIX, Windows, Sles, Aix,   Centos | * Data Base : My SQL Workbench * Programming: C# , Java Selenium * Editor : Ride,Vi,VIM,Sublime * Debugging * Root Cause Analysis (End to End testing) * **Oran NR Testing** on Kubernetes and Docker * Basic API Testing |

**Experience**

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| Kasadara Tech.|Bangalore **Sr. end to end Testing Engineer** *12/2022 – Current*  **Client - Itron.Inc** | * Oran LTE & NR Testing on Kubernetes and Docker, System Validation Testing) * Responsible for day-to-day Automation testing using scripts. * Failure, PDN connection failure, Authentication, and security failure, Brief knowledge on LTE/NR Protocol stacks RRC, RLC, and MAC of UE side * Performing AT (Attention terminal) commands like Network service, call control, SIM access * For checking binary, IMEI checking, network camping (Single, Dual, and triple mode), Crashing the modem, Airplane * Log analysis of RRC, RRM, EMM messages, mode, and RAT selection checking * Handset with Manual/Automation Testing Installing, configurations, and management of different Version of tools in the system * Configuration of work on LTE/NR n/w and Feature Testing * Responsibilities include the creation of test suites, test plans, test case execution, and Test scenarios * Execution of S1AP, RRC, PDCP, RLC, MAC, Call processing, Multi UEs test cases * Various procedures of MAC like RACH (Random Access Channel) procedure, HARQ. * Collect the Test execution logs analysis and Debugging the issues. * Responsible for performing the quick Manual testing on the release builds   which will be delivered to the customer, to ensure the basic functionality |

* Executing the different 5G features and ensuring the functionality testing
* Performing the Log analysis and troubleshooting of issues observed
* End to End issue tracking and debugging for the failure cases
* Prepare Setup (TM500) for Manual testing
* Responsible for automation setup-related issues and debugging the same.
* Used defect tracking tools like JIRA to report, track, and manage defects.
* Created detailed bug reports and tracked issues to resolution.
* Collaborated with developers and other stakeholders to resolve defects.
* Monitored daily builds for any potential bugs or discrepancies between expected outcomes and actual results.
* Reviewed technical design documents to ensure all requirements are met.
* Developed test cases based on user stories and acceptance criteria.
* Conducted regression tests after each release cycle.

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| Waveus Networks | Bangalore  **Sr. Software Engineer**  *07/2022 - 12/2022*  **Client - Commscope** | * UI Testing and LTE Testing * Doing the Functional Testing, Defect Verification, Kafka Testing, GIS Testing, Collector Testing. * Doing Sanity Testing, Regression Testing. * Collect the Test execution logs analysis and Debugging the issues. * Failure, PDN connection failure, Authentication and security failure, Brief knowledge on LTE Protocol stacks RRC, RLC, and MAC of UE side * Performing AT (Attention terminal) commands like Network service, call control, SIM access * For checking binary, IMEI checking, network camping (single, Dual, and triple mode), Crashing the modem, Airplane * Log analysis of RRC, RRM, EMM messages, mode, and RAT selection checking * Handset with Manual/Automation Testing Installing, configurations, and management of different Version of tools in the system * Load the software build on the Phone and perform configuration and LTE testing * Configuration of work on LTE n/w and Feature Testing * Responsibilities include the creation of test suites, test plans, test case execution, and Test scenarios * Execution of S1AP, RRC, PDCP, RLC, MAC, Call processing, Multi UEs test cases * Various procedures of MAC like RACH (Random Access Channel) procedure, HARQ. * Also, do the Automation testing in Robot Framework in Ride editor with the Selenium library. * Testing a GUI as per DB and project modules * Monitoring and reviewing test logs and proactively participating in test execution. * Testing applications, writing test cases, and making sure projects are completed on time * The purpose of this project is to prepare software to Manage network and Test. * Prepared, updated, and maintained activity reports and summary reports * Performed End to End Testing and log analysis on Linux(Rehl7 ,Rehl8), centos 7,seles11,zsles11.3,Aix 7.2,ZRelh7.3 * Install the ITNM into our server with the WAS, Jazz, Omnibus, and OmnibusWebGui. * Conducted functional, system integration, regression, stress, performance,   and user acceptance testing. |

* Collected test result data and analyzed patterns and trends to identify shortcomings in existing test procedures and addressed them through modified or innovative procedures.
* Participated in setup, configuration, and maintenance of test automation framework, providing feedback on potential benefits or detriments of specific framework configurations.
* Executed manual tests and generated comprehensive test results for review by stakeholders.

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| Aerial Telecom| Gurgaon|  UE/Modem Testing Engineer  *03/2021 - 01/2022*  **Client – Bharti Airtel** | * UI Testing and LTE Testing, Testing a GUI as per DB and project modules. * Monitoring and reviewing test logs and proactively participating in test execution. * Failure, PDN connection failure, Authentication and security failure, Brief knowledge on LTE Protocol stacks RRC, RLC, and MAC of UE side * Performing AT (Attention terminal) commands like Network service, call control, SIM access * For checking binary, IMEI checking, network camping (single, Dual, and triple mode), Crashing the modem, Airplane * Log analysis of RRC, RRM, EMM messages, mode, and RAT selection checking * Handset with Manual/Automation Testing Installing, configurations, and management of different Version of tools in the system * Load the software build on the Phone performing configuration and LTE testing * Configuration of work on LTE n/w and Feature Testing * Responsibilities include the creation of test suites, test plans, test case execution, and Test scenarios * Execution of S1AP, RRC, PDCP, RLC, MAC, Call processing, Multi UEs test cases * Various procedures of MAC like RACH (Random Access Channel) procedure, HARQ. * Collect the Test execution logs analysis and Debugging the issues. * Testing applications, writing test cases, and making sure projects are completed on time. * The purpose of this project is to prepare software to test any network from anywhere in the world. * Prepared, updated, and maintained activity reports and summary reports. * Performed End to end-to-end testing and log analysis on Linux. * Used defect tracking tools like JIRA to report, track, and manage defects. * Created detailed bug reports and tracked issues to resolution. * Coordinated with cross-functional teams for the successful execution of   projects. |

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| Eminence Softtech Pvt Ltd |Delhi  RF Optimization Engineer  *01/2020 - 08/2020*  **Client - Ericsson** | * KPI test plan execution in mobility conditions and reporting the results of execution on new hardware, software, and solution products. * Monitoring and enforcing the integrity of testing efforts by reviewing test logs and proactively participating in test execution. * Prepared, updated, and maintained activity reports and summary reports * Good Experience in field tests, Conformance tests, and Protocol tests for Mobile devices * Participated in sprint planning sessions and provided input regarding potential risks associated with planned tasks. * Assisted in troubleshooting customer problems reported through support   tickets or other channels. |

* Performed LTE End to end-to-end testing and log analysis and debugging the logs.

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| Siirius Network Services Pvt Ltd  |Testing Engineer  *08/2017 - 12/2019*  **Client – Nokia Vodafone** | * The project focuses on verification of Attach features of the device based on 3GPP standards and client specifications * It involves verification of test scenarios for the Attach service which is used by the UE to register itself with the Evolved Packet Core and use the packet services within the EPS * The UE can also use this procedure for non-EPS service such as CS speech call * The project aims at verifying the NAS procedure as per the 3GPP specified standards * Analyzing fail scenarios like, Registration failure, Random access (RACH) failure, RRC connection failure, Attach Good in analysis of LTE protocol stack layer wise messages * Failure, PDN connection failure, Authentication & Security failure, Brief knowledge on LTE Protocol stacks RRC, RLC and MAC of UE side * Performing AT (Attention terminal) commands like Network service, call control, SIM access * For checking binary, IMEI checking, network camping (single, Dual and triple mode), Crashing the modem, Airplane * Log analysis of RRC, RRM, EMM messages, mode and RAT selection checking * Handset with Manual/Automation Testing Installing, configurations and management of different Version of tools in system * Load the software build on Phone and performing configuration and perform LTE testing * Configuration of work on LTE n/w and Feature Testing * Responsibilities include creation of test suites, test plan, test case execution and Test scenarios * Execution of S1AP, RRC, PDCP, RLC, MAC, Call processing, Multi UEs test cases * Various procedures of MAC like RACH (Random Access Channel)   procedure, HARQ. |

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| Uni-info Telecom| WB **Testing Engineer** *06/2015 - 08/2017*  **Client – Huawei-Idea** | * Optimization of the LTE network * SCFT, cluster drive test, and IBS drive as customer directives * Handled higher-level escalations from zone * Perform analysis of drive test log and finalization changes * Analyze, troubleshoot, and resolve the worst cell problem to get the best KPI improvement * Analysis of various parameters such as RSRP, RSRQ, SINR, RSCP, EC/IO, BLER, CQI, RX level, RX quality * Throughput (downloading and uploading) call drop and call setup failure * Handover analysis * Look into the performance of ENodeB based on the daily KPI report * SCFT (single cell functionality test) of eNodeB, Cluster test of eNodeB, RF   Survey of eNodeB, Report Making |

# Education and Training

GNIT | WESTBENGAL UNIVERSITY OF TECHNOLOGY

**B.TECH** in Electronics and Communications Engineering

*06/2015*

KALORA HIGH SCHOOL

**SENIOR SECONDARY SCHOOL** in WBCHSE

*03/2011*

DASPUR VIVEKANANDA HIGH SCHOOL

**HIGHER SECONDARY** in WBBSE

*03/2009*

# Certifications

* **Pursuing Master Test Architect Program from IBM and Microsoft Through Intellipat.**
* **Undertaken 4-week training in the BSNL KOLKATA by SIMOCO.**
* **Basic Computer course from NIIT.**