­­Rohit Malgaonkar

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<https://www.hackerrank.com/rdm750>

https://github.com/rdm750

**SUMMARY OF QUALIFICATIONS**

An experienced Engineering Services/Information and Communications Technology (ICT) Professional with 7+ years of strong wireless experience in Firmware/Software Release & New Feature Verification, product validation,debug & testing of IP based products, Solution Integration & Advanced Services, Core Network Engineering, Deployment, Network Operations, RF & Transport with Tier I OEM/infrastructure vendors Ericsson, Samsung, ALU & operator Sprint, Verizon. Possess a Bachelor of Science in Electrical Engineering with a minor in Business.

Placed top 13% out of 2000+ Contestants in Competitive Programming Hackerrank.com Percentile: 96.09 Silver- 1 Bronze - 1 2016 – Present

**BlackRock** CodeSprint • 476/ 3217 participants **Top 15% (Python)**, Week of Code 21 • 432/ 9086 participants **Top 13% (Python)** 2016 – Present

**Specialties** Core Engineering Deployment Product Roadmap Production Networks

System Integration & Verification FIT/FOA(First in Test/Office Application) Network Rollout(NRO) Operator Labs

Network Management Upgrades / Installations Disaster Recovery Procedures Systems Conversions

**Work Eligibility:** US Citizen (Social Security updated) October 2012 – Present

**SKILLS**

**Protocols:**TCP/UDP/SCTP/IP,SIP(SDP,RTP),H.248, PSTN,SS7(ISUP,M3UA),IS 41,SIGTRAN ,S1AP,Diameter,GTP,SCCP,ARP,SFTP,TFTP,IKE/IPSEC,VPN,

SSL,LDAP,DHCP,802.1x ,G.711,EVRC,ENUM,A-interface(A1-A21) ,DNS, NAT, OSPF, MPLS,VRRP,SSH,SNMP,VLAN,CDMA,LTE,VoIP.

**Network tools:** Wireshark,SecureCRT,TACACS, Putty,Tekno,Empirix protocol analyzers,Anite WindCatcher,TEMS,JDSU,NEMO,Qualcomm QXDM QCAT QPST,Invex,Accuver XCAL-DO/CAP, Telecordia Granite XNG,Datapro,Geoplan,MapInfo,ConcordeHealth,Notepad++,Winscp,Winzip, telnet,Xming

**Scripting Languages & Object-Oriented Programming:** Python,Shell,Perl,Expect,C++(STL),UML,C#,.NET,XML,JavaScript,jQuery,HTML,CSS,PHP,Ruby,

Matlab**,**Simulink,Hadoop,C

**Databases:** SQL, Access, MySQL

**Software:** Microsoft Visual Studio, Eclipse, Github,Git,Microsoft Products –Excel PowerPoint Visio ,OrCAD,CAD ,Mathematica

**Hardware:** Rack and blade servers,Class 4/5 Switches,Sun Oracle (Blade, Sparc, M, and T Series),ATCA,Windows Server ,PIC18F6420,TI TMS320C6713 DSP Kit, Anritsu PIM 37300 Network Analyzer, Antennas, spectrum/signal analyzers, R&S, Tektronix signal/function generators & oscilloscopes, JDSU W1314A/B Series Receivers, PCTel/DRT RF Scanner & Spectrum Analyzer

**Operating Systems:** Linux/Unix/Solaris,Android(ADB),OS X,Windows

**WORK EXPERIENCE**

**Glow Networks, Inc | A CSS CORP Company** **Overland Park, Kansas**

***Network Engineer,*** *Engineering Services*September 2012 – February 2016

* Laid off due to downturn in business (corporate layoffs). Recommendation from Assistant Vice President (AVP-Operations).
* Facilitate deployment of network infrastructure worth millions of dollars for major telecom equipment companies.
* Software Tested Releases & troubleshooted VOIP/IMS/SIP(SDP,RTP)/ISUP/SIP-T/H.248/CSCF networks in lab and field environments. Strong Blade/Card level Experience with Ericsson & Samsung equipment (SIP Servers/Gateways/Controllers/Application Servers/VoLTE/IMS/LTE/CDMA Core Network). Provided technical product support to Service Providers.
* Lead small teams (up to 3) of technicians and engineers on client projects for delivering engineering services.
* Supporting ALU,Ericsson LTE deployment for US Cellular,Sprint & ATT VoLTE/LTE Carrier Adds in 1.4,3,5,10,15,20 MHz(bandwidth) for 700,850,1900,2100 Bands (5,2,4,12,17,AWS).

**Ericsson**  **Overland Park, Kansas**

***Engineer III - Services Software****, CSI System Integration & Verification (SI&V)* November 2013 – May 2015

* Perform successful integration, implementation, interoperability and certification testing of CDMA 3G Technologies with focus on Switching Core (Circuit Based, Packet Core) platform in Sprint's NDL (Network Design/STIC Lab) facilities and FIT/FOA (First in Test) field implementation.
* Support CDMA Core Roadmap,New Product Introduction(NPI),software releases,patches,Deployment,NDL daily maintenance,Hardware/Software & validation office NDL request, lab configuration, Method of Procedure (MOP) review, FIT Sprint CMC(Change Management Control),Kansas city FIT monitoring/KPI reports, FIT testing, Customer Service Requests (CSR/SMS),TIL(Trouble in Lab)/HP Application lifecycle management (ALM) Defects, verification test case development/execution, test object lists (TOL), CORE-RAN & Alarm regression, feature testing, Network development, schedule/milestone criteria/Contractual adherence, scheduling, bulletins/GOLS, Metis Trouble Report (TR)/MHWeb, issue investigation and reproduction, troubleshooting and system data collection for Product Line Management (PLM).
* Provide product support for core MTX VSE P-MSC blades (CA/DCA/NSA/IWS/SCX/SCG/SSG/NGW),CBM,CNM,VGWC,MGW(NSTA,LP/

Passport,4pGE FP,CP),CCMP 6K/8K, SE1200 CSLAN and CMUST test tool. Familiar with SAE, MME gsh cli commands,L14B,12U/13U systems, EEGS AEC,AEM,CSVS,CPDS,DSFP-V/D, CBRS and IPA,A2p SE1200 routers. Support Sprint Nationwide live production network (14 locations), NDL Labs (1-3, 5-7) via RSG (Remote Support Gateway) and Cisco TACACS (SE1200 SmartEdge Redback/Ericsson routers).

* Apply weekly patches on NDL labs 5,6,7 and release Sprint ND Approved Patch list for VSE,SOS,MGW,CNM & CBM. Upgraded labs to baseline 18 & 19 for MTX 19&20, OS 12.1.1.7 upgrade for CSLAN (Call Server LAN) SE1200 and support CDMA 14A,14B & 15A releases.
* Execute baseline software upgrades,patches,firmware,alarms, rex tests,swacts,software/parameter changes,dvd/NAS server backups,unit cloning,blade/card replacements/reseats,disk mirroring/metastat/zpool,fsck,ntp/stratum clock,health checks,Unix/Linux/Solaris OS CLI,8K Physical/Guest/Virtualization logical domains, Perl/expect/shell scripts, Pigeon Point Shelf Manager(shmm),ILOM/ALOM console,MRV terminal server, DFARF/Firewall,installation,Return Materials Authorization (RMA) process, Mtxtrack (call trace), asutrack(NOIS A1/A1p,IS 41,IS 826), siptrack (SIP,SDP),sigtrack (Megaco), traver (translations trace),SOS CI & scripts, MTX Golden Parameters List (GPL) validation,capci,logutil, JFIT,vlrmtc, qmob, queryvlr, vsepatch,gwcstat,trkci,

qlrn,spat,table editor,mapci,clliref,STDPRTCT,WINTDB, TMTCNTL,OFRT/office routes, callboxes,findtab, CDMAPART/IMAP,parmfind,diskut,

DMSMON/sched,MES,WPSCI,tcpdump,snoop,wireshark,Tekno & Empirix traces/reports,scxswitchcmd,bsmci,PDB,cemscli,cacp,cps,gwcadmin,cbmmtc,

billmtc,cdrsearch,toolsup,CNM CWD & CBM/CMT gui, xterm/Xming,user account add/remove/password & attribute changes for SOS/CBM/VSE/MGW/

CNM,Multiservice data manager gui,patch audit,rps and cnm audio capture tool commands.

* Troubleshoot WIN,CRBT,E911,CALEA,WPS,LNP,Voicemail,SMS,ENUM,SIP-T/SIP LMSD,ISUP,M3UA,SMR/DVSR,eCSFB and codec/HD Voice(SO73/1xAdvanced) issues.

**Samsung Telecommunications America Overland Park, Kansas**

***Network Engineer***, *Core Deployment* September 2012 – October 2013

* Supported Commercial Mobile Alert System (CMAS) for Mobility Management Entity ( MME) -CBC(cell broadcast center) testing and core network activities. Conducted Nationwide core LTE Acceptance Test Plan (ATP) test cases(10+) for Service Architecture Evolution Gateways (SAE-CPG PGW & SGW), MME deployments and 1x-Enhanced Circuit Switch Fallback(eCSFB) test cases(20+) for Interworking Service (IWS).
* Executed GPRS Tunneling Protocol Control (GTP-C) & User Plane (GTP-U), S1 Application(S1AP),Diameter, Domain Name System (DNS), PMIPv6, IWS(A21), Mobile Application Part (MAP), access network interface(A1/A1p), charging/billing, Session Initiation Protocol (SIP), ISDN user part (ISUP), call with Megaco protocol traces (700+) from MME, Samsung Wireless Softswitch and SAE-CPG Gateways for testers for each MME(14+), WSS(6+), SAE-CPG(10+), IWS(10+) and Base Station Controller (BSC)(10+) in production environment.
* Troubleshooted and resolved ATP issues by changing Tracking Area Codes,create/delete ip static routes,modifying eNB MME configuration, eNB netmask, ping gateway ip addresses, change cdma,evdo channels (cellular,PCS bands) on toy cells as needed, VLR mobile station & HSS subscriber information, gateway call information, service ip, process and filter QXDM UE log messages in QCAT, trace routes and highlighting transactions for operator (Sprint). Calculated eCSFB call setup times in QCAT and report IWS ID in UE logs (rrc ota gcsna) for Multi-Rack BSC. Supported core LTE basic integrating,commissioning and reliability testcases(14+).
* Conducted Nationwide Media Gateway (MGW) Deployment check by executing call through test plan (CTTP) 79 test cases for Sprint Network Vision (NRD) network ready dates. Executed call processing with Megaco, MAP, A-interface(A1/A1p) and charging/billing traces (1300+) from WSS(6+) for testers for each virtual MGW(20+) and BSC(10+) in production environment.
* Troubleshooted and resolved 3G CTTP issues by checking prl in QPST RL editor, changing Frequency in service status on the serving toy cell and MSC pool proportion from BSM, VLR mobile station information,trace translations, trunk status and route configuration, overflow/alternate routes, temporary

local directory number (TLDN), area code,MGW group,BTS group,Location ID(LOCID), SIP service ip, prefix tables,digit modification, SIGTRAN provisioning, MGW and WSS golden parameters,UI log folder, running continuity tests (COT) for ISUP on routes, executing ISUP and SIP traces from WSS.

* Provisioned signaling point code, routing key for destination point code and signalling connection control part for SIGTRAN as part of Customer Information Questionnaire (CIQ) implementation on Samsung WSS in Puerto Rico(Bayamon) during maintenance window.
* Generate and execute transaction language1 (TL1) scripts and commands from command line interface (CLI) to create,change, activate/deactivate,lock, unlock and retrieve data from 34 IP-MGW,10 WSS,34 BSM,41 IP-BSC,16 SAE-CPG, MME (14+), Multi Modal Base Station (MMBS), evolved NodeB (20+ toycells) using SecureCRT (Unix),LSM-R, LSM-C, BSM gui and unix versions.
* Analyzed call attempt distributions for 34 Media Gateways and peak connected sessions for 16 SAE gateways in Excel (pivot charts & tables) and provided busy hour for power studies. Identified E911 links for Lansing MGW TS1A cards for migration activity. Update SQL database supporting information by supplying actual hardware configurations, counts, rack views for 34 IP-BSC 1x,voice,DO ATP,RPP,IWP, 34 IP-MGW VPPA ,GCDA,GCNA and TS1A for monthly reports.
* Developed C# Winform desktop windows applications for Nationwide monitoring of 34 MGW VPPA DSP usage by using sharp SSH library. Wrote C# log file processor to extract needed data from the generated log files (1000),display in gridview and export to Excel. Wrote methods and class.

**Verizon Wireless** **Bridgeville, Pennsylvania**

***Engineer,*** *System Performance and Network Engineering* June 2009 – November 2011

* Successfully completed Verizon wireless Midwest Area engineering leadership program (coverage: 25 Million Subscribers). One of 5 candidates selected to participate in rotational assignments encompassing System Performance, Network Engineering and Operations.

***Facilities Engineer,*** *Network Engineering* July 2010 – November 2011

* Supported and project managed 4G LTE Fiber Optic (Ethernet Backhaul) deployment, circuit disconnects,backhaul capacity planning, engineering design for circuit and packet switched transport network resulting in direct telecom savings of $2M/year.Worked on packet DACS,Tellabs 5500, ALU 1671, 1678 MSPP, EBH SAM,OMP,7705,7750 and 9281/5e Switch. Designed backhaul by building paths and segments to cell site in Telcordia® XNG Granite Inventory Management Systems. Aided internal System Performance Group in troubleshooting and reported status updates on backhaul (T1,EBH) design and delivery dates.

***Associate Engineer,*** *System Performance* June 2009 – June 2010

* Coordinated and led network performance optimization test plans involving wireless data analysis, system monitoring and troubleshooting efforts resulting in reduced call drops (<0.7%), access failures (<0.7%) & increased system capacity (~10%) on ALU/Lucent infrastructure. Analyzed mobile and PCTel PN scanner logs using Xceed WindCatcher for Evdo grid drives. Examined messaging and wrote queries to determine various causes such as weak RF, pilot pollution, handoffs (MAIFHO,DIFHO), FCI,CDHNL,CBR/Attenuation,neighbor lists, ALU 5e call trace,access parameters, Alcatel-Lucent RF parameters, dormancy timers, PN color codes, Application throughput/data rate control (DRC) ratio etc. Used Wireshark on data session traces for time sequence graphs.
* Done remedy trouble tickets, Autotest unit troubleshooting and RF design activities which included antenna selection, azimuth and tilt modifications, coverage plot simulations and FCC regulatory filings. Supported Inbuilding DAS coverage/propagation analysis & testing,Pathloss,link budgets and RF design.
* Conducted independent daily operational metric analysis and statistical studies (PDFs, CDFs, regressions, time series) in Excel for possible interference identification (rssi noise rise), monitoring capacity (RLP data volume),drop calls, access failures, EVDO 10K router errors, processor utilizations and channel occupancy reports. Trained new contractors and interns on technical matters. Familiar with 1xEV-DO Alcatel-Lucent (R35.0) and Motorola (7.0) RF system parameters; Operational Metrics (OM) on Lucent, Nortel and Motorola.
* Designed EV-DO Rev.A Application Throughput, RLP (Radio Link Protocol), DRC RF trial and Capacity Modeling Study on Lucent & Nortel.

**Glow Networks (Now Glow Networks, Inc | A CSS CORP Company)** **Richardson, Texas**

***RF Engineer,*** *Engineering Services Summer intern & Co-op* May 2008-August 2008, June 2006-August 2007

* Successfully led several projects in various locations in the US supporting teams of 3-10 delivering RF drive testing services to various operators including Verizon Wireless, Sprint, Alltel, US Cellular, Cricket Communications, Bluegrass Cellular for Nortel. Recommendation from Senior VP of Glow Networks.

**Nortel** **Richardson, Texas**

***RF Engineer,*** *Engineering Services Summer intern & Co-op* June 2006-August 2008

* Done baseline, acceptance, cluster optimization, greenfield, orthogonal code noise simulator (OCNS), Markov, stationary, in-building, inter vendor hard handoffs, hand-downs, shakedowns, E911, troubleshooting drives using Accuver XCAL, Andrews Invex, QPST, Delorme and PCTel DTI scanners. Honored with customer recommendations on numerous occasions for the high quality of RF data collection services delivered leading to further engagements.

**EDUCATION**

**The Pennsylvania State University University Park, Pennsylvania**

*Bachelor of Science in Electrical Engineering; Minor in Business* Graduation Date May 2009

* **Verizon Wireless Coursework:** 2A-LTE-End-to-end Call Processing (5 mins in the Life of the UE) - Dr. Simo and Scott Baxter June,2010

A guided tour of the Physical Layer - Dr. Simo June,2009

* **Codeacademy:** JavaScript,Python,PHP,HTML,CSS,JQuery,Ruby 2016
* **Coursera/big data Coursework:**Computer Networks, Software Defined Networking,Intro to Python,Hadoop fundamentals 2014 - 2015
* **edX/Microsoft Coursework:**Querying with Transact-SQL, Programming with C# 2015

**HONORS**

* Placed top 13% out of 2000+ Contestants in Competitive Programming Hackerrank.com Percentile: 96.09 Silver- 1 Bronze - 1 2016 - Present
* Dean's List Fall 2005, Spring 2008, Fall 2008 & Spring 2009 2005 - 2009
* Madden Memorial Scholarship for academically talented students in Engineering. 2008 - 2009
* President’s Education Awards Program in recognition of Outstanding Academic Excellence by Penn State & School District Philadelphia.2004
* Advanced Placement Scholar Award for grades of 3 or higher on Mechanics, Electricity and Magnetism, Calculus BC and Statistics. 2004

**ORGANIZATIONS**

* Penn State Alumni Association and George Washington Carver High School Alumni Association.(Life Member) May 2012 – Present
  + - Alumni presentations to sophomores,juniors and freshman to encourage students to pursue engineering careers.
* ETA Kappa NU (HKN) Electrical Engineering Honor Society. Feb 2008 – Present

**LinkedIn Recommendations**

**Engineer III -Services Software, CSI System Verification**

**Ericsson**

**CDMA Support Engineer at Ericsson**

“I had the opportunity to work with Rohit the past year and half on several projects. Rohit was a key resource in supporting the Sprint NDL lab and in supporting the customer in the live market. Rohit was always quick to volunteer and eager to take on any project. Rohit is very dedicated to the

projects presented to him and was very dependable on getting the job done. Rohit required very little supervision on any project and was dependable to complete each task assigned to him. It was a pleasure working with Rohit and I would recommend him for any potential employer.”

**May 18, 2015, managed Rohit indirectly at Ericsson**

**AST at Tata Consultancy Services**

“Rohit is dedicated to the projects and has good grasp on learning new technical skills which can be used in a variety of projects. Rohit has completed each task assigned to him with very little supervision, always on time, and would get the job done. It was a pleasure working with Rohit and I would recommend him to any potential employer.”

**May 18, 2015, worked directly with Rohit at Ericsson**

**Network Engineer, Core Deployment**

**Samsung**

**Independent Telecommunication Consultant**

“I know Rohit when we're working together on Samsung 3G and LTE Core deployment projects. Even though his backround was RF he managed to learn CORE stuffs pretty fast. He's smart, independent and reliable person. He's to go to guy if you need help and a person who can execute and make missions accomplished. I strongly recommend Rohit!”

**November 1, 2013, worked with Rohit at Samsung**

**Sr. Manager - Core Network Design at Samsung**

“Rohit is a talented, quick learner and a very hard working professional. He worked with me from 2012 to 2013 on a large Core Network deployment project. I was impressed by his can-do attitude, troubleshooting skill, the quality of his work and his constant dedication. Rohit has successfully completed all his assignments and has always gone above and beyond to help his co-workers.

I certainly believe he has what it takes to make a wonderful and very dependable Network Engineer.”

**October 25, 2013, was with another company when working with Rohit at Samsung**

**Engineer, System Performance and Network Engineering**

**Verizon Wireless**

**Principal Engineer at Verizon Wireless**

“I had the opportunity to work with Rohit on his Evdo Capacity Modeling project. I was impressed by Rohit's technical knowledge and his attention to detail. Rohit is a hard worker and would be an asset to any engineering team.”

**April 9, 2013, worked with Rohit at Verizon Wireless**

**Project Employee/Engineer, Engineering Services**

**Glow Networks**

**Senior LTE/VoLTE Network Performance Engineer at Verizon Wireless**

Rohit is a talented and dedicated professional, he worked with me as an intern in 2006 on a Sprint project. I was amazed with his skills keeping in view the fact that he was just about to start his BS at that time. I will strongly recommend him for any opportunity and wish him good luck in his job search.

**September 28, 2012, worked directly with Rohit at Glow Networks**

**Sr. Principal Consultant at Oracle**

Rohit came into RF field first as an intern where I was leading the project in GLOW NETWORKS end client Nortel, in just few days he learned the ways of working, was diligent, and responsible individual who I use to bank on in trying times.

**April 25, 2012, managed Rohit indirectly at Glow Networks**