

OBJECTIVE

Seeking a technical role or position in Mobile/Wireless Communications Product Engineering, Embedded Computing and Networking or a related industry field with relevance to product/solutions development and engineering, systems SW/HW architecture and integration or applications management/optimization, test/QA/validation and delivery within a dynamic and effort conducive work environment, where I can leverage and apply my knowledge and skills to contribute to productive work and deliver effective solutions, products and value.

EDUCATION

George Mason University, Fairfax VA, May 2010

The Volgenau School of Information Technology & Engineering,
Master of Science, Telecommunications

Focus area: Mobile & Wireless Communications, Embedded & Networked Computing Systems, Converged Networks & Smart Grids

Virginia State University, Petersburg VA, December 2006

School of Science, Engineering & Technology,
Bachelor of Science (Magna Cum Laude), Electronics Engineering

PROFESSIONAL EXPERIENCE

Google Inc.

(consultant via TechMahindra Services)

Kirkland, WA

Sr. Product Engineer (interoperability/integration)

04/16 - present

Essentially contributing as an Interoperability, Integration and Certification Engineer to Google's global Mobile Android Communications product's projects and initiatives aimed at successfully expanding and scaling Android Mobile Rich Comms adoption on Mobile Devices and introducing relevant innovative and derivative services and products. Main duties, tasks and responsibilities include:

- Performs Mobile Multimedia platforms (IMS, SIP) UNI integration and adaptation testing, protocol stacks validation integration in support of Google's Android Rich Communications (telephony and messaging) device client (app/native/embedded) functionalities and usability across mobile devices (UEs) within multimode wireless access/connectivity environments (2G, 3G/UMTS, 4G/LTE, WLAN/Wi-Fi)
- Works with SW developers (app/engine + UI design), PMs and TPMs, Carriers' technical teams, internal design teams, cross-functional teams, OEM/ODM partner teams to understand and comply with product requirements factors (field entry package, entrance criteria, user stories, product backlog, test reporting, test plans, issue tracking, bug reports, approval criteria) and to ensure the product design meets the carrier requirements for feature set, functionality, reliability and industry standards compliance
- Supports incremental IP Mobile Messaging and Telephony Architectures' systems and protocols implementations through technical service and product model analysis, SW design discussions, profile specifications/requirements verification, code inspection, issues investigations (e.g. LTE/VoLTE, IMS, TCP/IP, SIP, SDP, RTP) and remedial solutions development or fixes introductions and deployment for the end goal of fine-tuning mobile client software and delivering an optimal product
- Prepares and executes Interoperability (IOT) and QA Tests to ensure product's optimal quality, operation and compliance with mandated standards (GSMA, OMA, 3GPP, IETF/RFCs); and drives technical approval activities with both the Engineering Productivity teams and the operators' Labs to ensure full support, coverage and completion by investigating, debugging (log/trace/packet analysis) and solving mobile SW/HW issues and further generating key reference documents, test process and test deliverables
- Interfaces with various Mobile Network Operators (MNOs), MVNOs, OEMs and in liaison with the GSMA, on coordinating and driving Mobile Carrier Interoperability enablement and realization activities and associated GSMA-mandated validation, certification and accreditation testing influencing overall Product Development and Management
- Coordinated and drove adjunct Lab and Friendly/User trials testing efforts and activities by gathering, reviewing and verifying tests data and results/reports (from 3rd Party Labs) and assisted in preparation for Certification (GSMA – GCF/PTCRB/TS.11)
- Participates in and provides actionable input in strategic discussions and consultative meetings (with Product Managers and Technical Program Managers) on Product features additions, bugs/issues triage sessions, carriers' adoption, launches risks and contingency mitigation matters, success metrics and Rich Communications Ecosystem opportunity forecasting, roadmapping and sustainment.

AT&T Mobility Labs

(consultant via Inabia Software Solutions Inc.)

Redmond, WA

Sr. Product Development Engineer (QE/Integration)

06/13 - 04/16

Performed AT&T's 4G/LTE Wireless Mobile Broadband Devices and Services Platform Validation QA/QE Testing, Verification and Integration for Technology & Product/Service Realization and in support of 4G/LTE Network platform and

features pre-deployment and launch phase activities, carrier acceptance and First Field Application (FFA) Operations. Main duties, tasks and responsibilities included:

- Applied systematic and practical knowledge of Wireless/Cellular Communications (2G/GSM, 3G/UMTS, 4G/LTE, WiFi), Small Cells, Core, Radio Access Technology, Telephony Convergence (IMS Core/VoIP/SIP/SDP/RTP, RCS, WebRTC), Messaging and IMS Networking and Mobility Architectures along with 3GPP/GSMA-oriented AT&T Carrier Validation Testing Specifications and Mobile Devices Architecture, in order to conduct End-to-End Subscriber Products (devices) and Network testing, verification and validation of major LTE Software releases and upgrades
- Analyzed network designs and architecture, wrote or reviewed and executed defined functional and standard-guided tests cases/plans (integration, interoperability, user acceptance, regression, functional, performance) in order to verify, assess quality or performance and detect various bugs and defects existing or appearing in devices (UEs) software releases against specific technical Carrier Requirements for key 4G/LTE Integration projects
- Utilized Devices and Network Analysis, Logging, Debug Tracing and Performance Evaluation and diagnostic tools such as Qualcomm QXDM/QPST/QCAT, Wireshark, JDSU Signal Analyzer RT, NetScout nGenius, Tektronix Iris in data capture logs collection in combination with Lab signal equipment, to assess and gauge network and device HW/SW quality and protocol performance in order to certify quality/functionality or diagnose any malfunctions, anomalies and defects
- Performed handset client OS/firmware/binaries upgrades (Android, Windows), test configurations, systems IOT testing, radio Cellular Protocols stacks and mobile device software, modem behavior log/trace analysis and troubleshooting to produce actionable analysis deliverables to be discussed and translated into defects or case issues
- Conducted various elaborate and extensive investigative or diagnostic-type analysis of Mobility/Radio & Core communications protocols and interfaces (GTP, MAC, RLC, RRC, NAS, PPP, RANAP, PDCP, TCP/IP, UDP) in relation to Radio Access technology type (3GPP/3GPP2, E-UTRAN, UTRAN, GERAN) or higher/lower level layer interfaces and also by application and assimilation to service and implementation modes (IMS, RCS, IRAT, SRVCC, WebRTC, IP Messaging), with reference to mandated industry standards (3GPP, OMA, CTIA, GSMA, GCF, PTCRB, ADAPT, AT&T10776)
- Utilized Software Quality Management tools (HP Application Lifecycle Manager/Quality Center, Specialized databases) to raise, document software defects, bugs and track or manage them in a process-oriented testing environment and framework for improvement and resolution leading to revised Test Object Lists (TOLs)
- Interfaced and worked closely, collaboratively and diligently to support End-to-End (E2E), Integration, OEMs, Vendors R&D, Field/User trial teams for troubleshooting, reproducing and sorting bugs or issues, meeting requirements, achieving projected, planned and expected network feature functionalities, quality metrics and indicators
- Participated in 4G/LTE/VoLTE Service Planning Project Management and SPE Product Realization steering activities

T-Mobile USA

Bellevue/Snoqualmie, WA

Systems Engineer (Design, Strategy & Integration)

10/10 - 06/13

- Architected, designed and integrated Cellular/Mobile Wireless (2G-GSM/GPRS/EDGE/3G-UMTS/WCDMA/HSPA/4G-LTE/IMS/Signaling) Service Provider Platforms' Network Management services and Service Assurance software solutions
- Elaborated strategies, built and implemented programmatic features for GERAN/RAN/UTRAN/E-UTRAN and Core Network Monitoring and Operational Intelligence to enhance Customer/NOC experience and assure Network Survivability
- Participated in major RAN (BTS, RBS, BSC, DAS, NodeB) & Core Network (HLR, VLR, SMSC, IMS Core, IN, Messaging) components and Software services and objects integrations and certification by assuming leadership and responsibility in Service Assurance, Fault and Performance, IOT, ATP testing duties and tasks executions, ensuring FOA streamlining and success of software upgrades and deliveries
- Worked with various equipment and device vendors to create technical software specifications such as System/Feature Requirements Documents (SRD/FRD), Device Model Architecture, Specifications and Interface/Protocol Specifications using Object Modeling techniques
- Developed and executed integration, configurations, functional and connectivity Testing/QA cases based on system operability, call flows and embedded event analysis and captures for staging/production deployment and validation builds
- Implemented new LTE/EPC/IMS/VoLTE Network Devices Integration through direct element functionality analysis and also via centrally-supported Element Management System in support of T-Mobile's LTE Network Modernization Initiative
- Handled Applications Software Management and Radio Performance operational and functional issues and failures by addressing Trouble Tickets, Work Orders and remediation plans (MOPs, SOWs) through Root Cause Analysis (RCA) and integrated event reporting systems with Tier-2/Support, Escalation teams and influenced Operational processes enhancements
- Designed, developed and implemented of nationwide large-scale array of Network Elements and Applications alarm management network automation process scripted tools with Shell and Perl scripts and other supportive tools aimed at improving Operational Efficiency and Intelligence and maintained related knowledge base
- Drove full projects to completion through SDLC model-based processes and methods from build through release acting across diverse involved cross-functional teams of stakeholders and working closely with Development and Ops units.

IBM Corporation

Research Triangle Park, NC

Software Performance Analysis Intern**06/09 - 08/09**

- Analyzed and tested the performance characteristics and attributes of IBM Tivoli Software Platform infrastructure and software management agents for optimized updates release
- Designed and built a testbed and simulation environment for integration, scaling and high-availability testing
- Performed scale/regression/QA testing, measurements and benchmarking for deployment and provisioning
- Conducted Root Cause Analysis upon QA test runs for detection or uncovering of defaults, issues, troubles, malfunctions after bug/issue triage adjudications
- Executed analytical testing with agents sizing for Network Services Providers using the IBM Tivoli platform
- Managed Distributed Network, OS/Platforms through performance monitoring, baselining and workload balancing
- Interpreted project activities ongoing to ensure prioritization of deliverables in estimated milestone parameters, conforming with SDLC phases
- Utilized Performance tools and C++ software profilers in analyzing software defects and performance leaks
- Performed OS and Software images deployment and test configurations
- Provided Network Diagnostics and Troubleshooting assistance, working with Network team on solving Firewall, Load Balancers, VLAN issues and other various Network Operations related problems

Camp Dresser &McKee Inc. (CDM)

Falls Church, VA

I&C/Automation Engineering Co-Op**05/08-09/08**

- Assisted on major industrial plant project's application engineering and control software Integration and Deployment operations, duties and tasks completion
- Performed control software QA/QC and performance benchmarking achieving optimized start-up routines
- Executed loops check tests and oversaw contractors performing ORT (Operational Readiness Testing) and FAT(Factory Acceptance Testing) conforming to specs and control strategies
- Designed and programmed embedded Human Machine Interface (HMI) /OIT (Operator Interface Terminal) integrated and networked systems for supervisory usage/operation,
- Configured and tested OPC servers to interface between HMI's, PLC's third-party legacy devices, Client/Server redundancy, and fault-tolerant systems in order to achieve commissioning goals,
- Troubleshot, debugged, isolated and repaired industrial automation and control systems applications using tools such as network/protocol analyzers, log file analysis, remote access monitoring, database queries, RS-232 break-out boxes and error code analysis.

nTELOS Wireless Inc.

Richmond, VA

RF/Wireless Associate Engineer**02/07- 01/08**

- Performed Cellular RF/Wireless (CDMA/1X/EVDO-1x) Network Performance Optimization operations and fault diagnosis tasks and phone signal enhancement
- Assisted with RF network design, planning, integration, commissioning and deployment of new CDMA2000/3G/1xEV-DO network elements, cell sites.
- Methodically and systematically analyzed post-processed field test data deriving actionable insight for RF coverage quality or voice/data performance improvement solutions and network expansion and growth build out.
- Investigated, troubleshot and addressed customer-related network SW/HW issues and device failures.
- Monitored RF cellular coverage in serviced areas with CDMA Testing and Diagnostic Monitoring Tools through implemented operational data collection and drive testing using Ericsson TEMS, MapInfo, Actix, WindCatcher.
- Performed advanced monitoring and review of radio network Key Performance Indicators (KPIs) and participated in the development of inter and intra team processes for system performance.
- Delivered strategic OSS assistance for transmission Switch-based operations during rollouts and major upgrades
- Executed and documented FCC_E911 Compliance testing following FCC mandated plans.
- Performed ECP and 5ESS translations, ECP table generations, dxd route tables and dialing plan form (APXRCV), running shell scripts for analysis of asserts fired in MSC
- Provided Switch support through Network databases upgrades and traffic analysis and updates.

SKILLS

Platforms/OS/Languages/Tools: Unix (Sun Solaris) Linux (RedHat, Centos), Shell Scripting, Perl, C/C++, Java, JavaScript, Windows Server 2003/08, Oracle SQL, Business Objects, PHP, HTML/XML, Android, Windows Phone (OS), Wireshark, QXDM/QPST/QCAT, NetScout nGenius, JDSU, Tektronix Iris, HP Quality Center, Git, MATLAB, OPNET

Computing/Networking/IT: OSI, TCP/IP, IPv4/IPv6, BGP, OSPF, MPLS, ATM, SONET, HTTP, FTP, SSH/Telnet, DNS, UDP, DHCP, Syslog, LDAP, Cisco Internetworking, Distributed Systems, Troubleshooting & Analysis (wireshark, tcpdump), UML/OO Analysis and Design, Agile Release, DevOps, ITIL Concepts

Telecommunications/Mobility/Wireless: Mobile Wireless/Cellular Networks (GSM, GPRS, EDGE, CDMA, EVDO, UMTS/WCDMA, HSPA, LTE/LTE-A/EPC/SAE, 4G/5G, 3GPP/3GPP2, IMS, Wi-Fi, OFDM/MIMO), Mobile Computing (WAP, OMA, Android, RIL, MBIM), VAS+Messaging (SMS, MMS, RCS), NGNs, Unified/Converged Communications (IMS, VoIP/VoLTE, SIP, RTP, SDP, WebRTC, RCS, FMC), Radio Protocol Stack/Layer Analysis (PHY, MAC, RLC, RRC, RAB, RANAP), RF Network Design and Optimization, Signaling, Network Analysis & Performance/QoS (LAN/WAN, WLAN), Device/Network Certification

and Conformance Testing, Service Delivery and Integration, Smart Grids/Internet of Things (IoT), LPWAN, NB-IoT, Bluetooth, SON, Object-Oriented Networking, Telecommunications Management

Professional Attributes/Skills: Time Management, Prioritization, Multi-tasking, Trouble Management, Software Project Leadership, Agile/Scrum Methodologies, Agile QA Testing, Product Ownership, Software Product Operation and Management excellence, Disciplined Execution & Delivery

CERTIFICATIONS

Wireless Communications Professional (WCP)® by IEEE-WCET(Wireless Communications Engineering & Technologies) Oct.2015 - Oct.2020

Certified Scrum Product Owner (CSPO)® – by The Scrum Alliance: focus and emphasis on service products and embedded software – Feb. 2016 - Feb. 2019

AUTHORSHIP/PUBLICATIONS

- S. Badombena-Wanta, E. Sheybani, *Mobile Communications for Development: Enabling Strategic and Low-Cost Applications for Rural and Remote Areas*, IEEE-Wireless Telecommunications Symposium 2010, Tampa FL.
- Ehsan, S. Javidi, G. Wanta S., *Establishment of a Global Multi-node Teleconferencing Infrastructure for Research and Education*, IEEE SouthEast 2007, Richmond VA.

ACTIVITIES

Institute of Electrical and Electronics Engineers (IEEE), Professional Member
COMSOC / Computer Society, Professional Member
Association for Computing Machinery (ACM)/SIGMOBILE/SIGCOMM, Professional Member
Project Management Institute (PMI)/IT-Telecom SIG, Member
Internet Society (ISOC), Global Member
IETF (Internet Engineering Task Force), Technical Group Participant
The Wireless Internet Institute, Fellow Member
Interconnections Seattle, Tech Volunteer
Google Campus Ambassador (Volunteer) 08-09

AWARDS/ACHIEVEMENTS

Internet Society (ISOC) Next Generation Leaders 2012 Fellow
SuperComputing SC 2009/2012 Broader Engagement Fellow
Google Academic Scholar 2008
International Communications Industries Foundation (ICIF) Scholarship 08-09
International Telecommunication Union (ITU)-YES/NOKIA Corporation Scholar

References Available Upon Request