Qualification Summary

- 20+ years of software testing experiences, specialized in Solution/System level testing of large scale data/voice/video/mobile/cloud products
- Proven record in leading complex, cross-BU, cross-company, multi-vendors testing projects
- o Champion in providing technical leadership, team building, and collaboration
- o Extensive experience in architecting test strategy/solutions, test tool evaluation, test tool development
- o Extensive experience in system integration, load, scale, high availability, and performance testing
- Broad knowledge on technology

Technical Expertise

- Virtualization and cloud technology (OpenStack, VMware)
- ➤ Video technology (ABR, HLS, HSS, HDS, Video content acquisition, catalog, delivery)
- ➤ Mobile technology (CDMA, 3G UTMS, 4G LTE)
- ➤ VoIP (H.323, SIP) and Call Control protocols (MGCP, TGCP, H.248)
- > Session Border Control architecture and related security features
- ➤ Networking protocols (TCP/IP, routing and switching protocols)
- Cisco Routers (as5xxx, c7200, c7300, c7600, GSR, CRS), Switches (cat3K, cat6K, nexus), and UCS
- ➤ Agile and Waterfall software development methodology
- > Software testing methodology
- Scripting and automation (TCL, ATS, Python)

Professional Experience

Cisco System Inc., San Jose, CA **Engineering Technical Leader**

Service Provider Video Technology Group (SPVTG)

06/2011 to Present

Product: Media Origination System (MOS)

- Research and design test environment for hosting video solution on the OpenStack cloud. Investigate open-source orchestration, automation, and test tools for the cloud. Run POC activities with external vendors (Mirantis, Maginatics, Intank) on orchestrating application and on hosting storage on the cloud.
- Developed Agile test strategy for Media Origination System projects. Ran Agile integration team as Scrum Master. Collaborated with other scrum teams.

Product: Videoscape System Releases

- Architected testing solution for Videoscape System Releases. Collaborated with more than 10 different
 product teams cored to Cisco Videoscape solution. Provided technical guidance to build a new Videoscape
 system/solution test team in CRDC China. Coordinated system integration testing and regression
 automation efforts. Responsible for load&scale and performance testing of Videoscape System Releases.
- Evaluated video test tool vendors. Architected the Videoscape Load Emulator (VLE), a scalable in-house developed client device simulator for video streaming load and performance testing.
- Collaborated with 3rd party storage vendors (EMC, NetApp) to develop Cisco Validated Design (CVD) for Videoscape solution.

Mobile Internet Technology Group (MITG)

11/2008 to 06/2011

Product: Mobile Video Gateway

• Responsible for functional and system level testing of Mobile Video Gateway optimization solutions on Starent mobile platforms. Coordinated testing efforts with Starent remote test teams. Collaborated with Starent test teams on Cisco test processes and methodology.

Product: 3G/4G Mobile Gateway

- Responsible for system level testing of Cisco 3G (eGGSN) and 4G/LTE (SGW/PGW) mobile gateways.
 Designed and implemented simulated 3G/4G network for end-2-end functional testing and load&scale testing.
 Defined requirements and deliverables for 3rd party tool vendor.
- Developed Customer IOT test plans. Supported TME and Advance Service teams on customer test activities and customer RFI's responses.

Carrier Core and MultiService Business Unit (CCMSBU)

12/2002 to 11/2008

Product: A-IMS Bearer Manager

- Led a cross-BU test team on Advanced-IMS (SIP over LTE) solution for a major mobile service provider customer (Verizon Wireless) and participated in their 6-month multi-vendors bake-off testing program at customer sites.
- Developed test strategy, test plan, and coordinated test activities. Defined bulk call simulator requirements for 3rd party test tool vendor (Spirent) and internal tool development teams.

Product: Session Border Control (SBC) for SIP Infrastructure

Responsible for architecting testing solution for Session Border Control, security features for SIP Infrastructure. Evaluated 3rd party SBC products. Coordinated 3rd party code delivery and acceptance. Contracted 3rd party tool vendor (Hammer) to develop test tool for customized call flows. Coordinated cross-BU and on-site customer test activities. Conducted training and provided technical support for internal and external customers. Worked with worldwide major service providers including Japan NTT.

Product: Voice over IP Solutions on Voice Service Module (MGX/VXSM)

- Led system level test team for Call Agent (Packet Cable TGCP/MGCP, Megaco H.248 Soft-Switch) controlled Media Gateway solutions. Responsible for driving high availability, scalability, and performance testing. Coordinated testing efforts with internal and external Soft-Switch partners (BTS10200, PGW2200, and Lucent).
- Conducted product training and demo. Provided technical support for SE and Marketing. Analyzed field failures and test coverage to identify test gaps and drove improvement plans.

Voice Gateway and Dial Business Unit (VGDBU)

08/1998 to 12/2002

Product: Dial and VoIP Solutions on Access Server

- Led system test and solution test teams for Dial (Modem, ISDN) and VoIP (H.323, SIP, SS7) solutions on Cisco AS5xxx platforms. Collaborated test efforts across multiple test organizations. Represented the business unit for technical expertise on access server platform in the overall solution.
- Responsible for defining test strategy, developing joined test plans, resource planning, test tool evaluation, progress tracking, and status report to management for the projects.
- Designed and implemented large scale system/customer test environment. Supported customer Beta testing and troubleshooting CAP accounts.

Amdahl Corporation, San Jose, CA

01/1990 to 08/1998

Senior System Test Engineer

- Performed software functional and scalability testing of large-scale IBM compatible mainframe computer.
- Developed test plans, evaluated test methods, and implemented test processes to improve software quality.
 Provided technical guidance and training for other test engineers. Developed training classes and troubleshooting guidelines for Manufacturing and Field engineers.
- Provided technical support for Customer Service and Field Engineer. Performed field failures root cause analysis. Assisted Field Engineer during customer installation and maintenance sessions.

Education

California State University, San Jose, 1990 B.S. in Electrical Engineering, Minor in Computer Science