NITHISH JAYARAMAN

SENIOR LEAD SOFTWARE TEST ENGINEER

# CONTACT

770-335-3020

swtest.automation123@gmail.com

# PROFILE

Software QA Lead / SDET / Software Test Architect with full system development lifecycle experience, including strategizing, designing, developing, and implementing Test Plans, Test Cases, Automation framework, and DevOps pipelines. Qualifications include 13+ years of QA software testing experience, both manual and automated testing and 5+ years of leading both on-shore and off-shore team members. Expertise in design and implementation of automation frameworks for cable broadband devices. Expertise in setting up and maintaining automation infrastructure that includes Jenkins Servers, Video Set-top and Data Gateway test automation tools, mobile app automation tools. Designed and created deployment strategies using CI/CD Pipeline and configuration management tools with remote execution to ensure zero downtime and shortened automated deployments. Created, modified and maintained CI/CD pipeline using Gitlab, Jenkins, Docker, Artifactory, Azure DevOps Server, Amazon Web Services and Team Foundation Server.

# SKILLS



* *Scripting Languages:* Perl, PHP, VB, Unix shell, Python
* *Testing Tools:*

Quicktest Professional, HP Loadrunner, Selenium IDE, Eggplant, JIRA, Zephr, Bugzilla, HP Quality Center, iperf, Veriwave, Spirent test center ixia, Postman,

pytest

* *DevOps Tools:* Gitlab, Jenkins, Github, Docker, Dockerhub, Openstack,

Ansible, Amazon Web Server, Azure DevOps Server, Vsphere

* *CPE Skills:* DNCS, SARA,

IGUIDE, Barcelona, OCAP, RDK, XRE, CMTS, DOCSIS

# EXPERIENCE

Lead Software Test Engineer

Synamedia. Lawrenceville GA Dec 2020 to Current

* Collaborate with business and development teams to understand product vision and requirements and created test strategy for CICD driven release process that excels in tackling high deployment frequency. Responsible for setting QA goals and creating implementation plans to achieve the set goal. Responsible for implementing QA processes and implementing improvements based on feedback from product management, program management, software development and QA team members. Involved in creating and managing QA engineering budget. Responsible for guiding the day-to-day activities of the QA team members. Responsible for recruiting, coaching and mentoring QA team members. Evaluated open source and proprietary tools and technologies to automate Web Based Applications and Mobile Apps. Experience working with contract vendors. Experience in managing both on-shore and off-shore teams.
* Lead the Software Test team, both manual and automation engineers, in testing RDK based and OpenWRT based broadband routers, and cloud-based management applications. Planned, architected, and developed a PyTest BDD based test automation framework that tests Broadband Gateway devices and Cloud based Device Management Solution. Define test requirements, scope, and timeline based on business requirements and software technical specifications. For every release with new features and functionalities, perform Gap Analysis to achieve full test coverage. Expertise in Selenium based automated GUI testing and RESTful APIs testing using Python.
* Lead the DevOps effort in setting up sanity, nightly regression, and release pipelines for testing Embedded Device Firmware, Web Applications, and Mobile Apps in Gitlab. Championed the end- to-end CI/CD test solution using Gitlab that builds RDK-B / RDK-M embedded firmware, deploys on target DUTs, execute sanity tests and uploads test results to Jira-Xray test execution. Planned, architected, and developed software integration tools – automated signing tool that help sign the device firmware image, deploy firmware images to AWS S3, upload artifacts to Artifactory, Wi-Fi SSID scanner, upload test results to Jira-Xray test execution. Responsible for onboarding and maintaining both partner and internal users in Gitlab, Jira-Cloud and Artifactory.

# QA Lead/DevOps/Test Automation consultant

Halliburton. Houston TX – iLink Systems. May 2018 to Dec 2020

* Lead the QA team in testing Edge IoT devices and Web Dashboard. Define test requirements, scope, and timeline based on business requirements and software technical specifications.

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| 3.0 / 3.1, SNMP, DHCP | Created, maintained Test plans and Test cases in Team Foundation Server (TFS) and Azure DevOps Server (ADO). Created and maintained project specific documentation including support and maintenance documents.   * Maintained all test related software code using GIT source control. Coordinated and assisted developers with establishing and applying appropriate branching, labeling conventions using GIT source control. Created, modified and maintained CI / CD pipeline including build, deploy and test jobs using TFS and ADO. Performed both Staging and Production deployments using ADO and PowerShell scripts. * Perform integration testing of all embedded applications used in IoT Edge device. Created automation scripts using Python to test data encryption, data compression, data transfer, and data integrity. Performed system testing of applications used in IoT Edge device. Evaluated various IoT EDGE devices to verify hardware meets project requirements and made recommendations to the team. * Automated functional testing of web dashboard application using Selenium IDE and Selenium Webdriver. Virtualized the servers using Docker for the test and dev environments and, configuration automation using Docker containers. Developed and maintained Loadrunner scripts to execute performance and load testing of web dashboard application. Performed API automation testing using Postman scripts.   Software QA/Test Automation/DevOps Engineer  Cisco. Lawrenceville GA –– Technicolor. Lawrenceville GA  May 2010 to November 2015 November 2015 to March 2018   * Reviewed product requirements & defined test automation strategy to achieve maximum return-on-investment. Created test automation frameworks and automation scripts to test Set top Boxes, Unified Gateway devices and Smart home solutions. Expertise in stability and stress test automation using python script for cable gateway devices. Created and maintained automation setup for measuring WiFi throughput (RvR) of gateway devices. Reviewed manual test cases, executing where necessary, to understand the low-level detail and identify functions required to enable scripting/coding. Evaluated open source and proprietary tools and technologies and made recommendations to the team. Used Eggplant tool for mobile and desktop automation. Created and maintained RESTful APIs using Python to test WiFi broadcast stability. * Developed and maintained Selenium based automated GUI testing for Digital Life smart home device. Tested remote management, monitoring, and firmware upgrade process using TR69 protocols using Cisco BAC and Cisco Prime Home ACS for AT&T Digital Life Smart Home Security devices. Tested monitoring and controlling of various IoT devices, Door and Window Sensors, Cameras, Thermostats, connected to Smart Home security system. Performed TR-069 compliance testing for cable modems, with TR 181 data model, against Cisco Prime Home and Nokia HDM ACS. * Expertise in setup and maintenance of Gitlab source control tool. Configured Jenkins to automate the build deployments based on the changes captured in GIT Version Control. Installed, Configured, Managed and Created different Build and Deployment Jobs in Jenkins. Created and maintained CI pipeline including build, sign and test jobs using Jenkins and Gitlab. * Worked as a part of the agile team with Developers, CIT team, SVT team and Business vendors. Compared the existing test plan with Vendor Acceptance test plan and performed Gap Analysis to achieve full test coverage. Executed test plan and created new test scenarios for integration testing of RDK based set-top boxes. Lead the effort for pre-rack, rack and QA testing on Comcast broadband gateways like XB3 and XB6. Knowledge of Comcast test strategies and test tools. Worked on TDK, test automation framework for RDK based devices. * Experience creating DHCP config files for various broadband gateway devices. Expertise in troubleshooting cable modem issues occurring at various stages of bootup process. Working knowledge of DNCS and CMTS. In depth working knowledge of cable modem and erouter subsystems of broadband gateway like CGA4131(Cox-cbr) CGA4234 CGA4233 (Vodafone) DPC39xx class of products. Experience creating and maintaining VM using Vsphere and Vcenter. Experience setting up terminal servers and switches. Expertise in performing compliance testing of IoT devices connected to cable modems. |
| server, ipv4, ipv6, TCP, |
| UDP, TR69 protocol, TR98 |
| TR181 datamodels |
| EDUCATION |
| M.S. Electrical and |
| Computer Engineering, |
| University of California, |
| Santa Barbara |
| 2007 - 2009 |
| B.E. Electronics and |
| Communication, Anna |
| University, India |
| 2003 – 2007 |