QUAN NGUYEN

Lynn, MA | qnguyen.ng@gmail.com | 351-208-8325 | linkedin.com/in/quan-nguyen-47b01b51
US Citizen

SUMMARY

A Software Quality Engineer with a background in data storage knowledge and virtualization technology. Experienced in analytical problem-solving while testing hardware and software solutions. Skilled in testing both On-Prem and Cloud services. Highly motivated and proficient in developing test methodologies, processes, designs, and tools. Strong knowledge of the software development life cycle with experience working on agile teams. A team player with excellent communication, organizational and interpersonal skills.

SKILLS

- **Programming:** Python
- **Hypervisors:** vCenter, Hyper-V, Nutanix
- **Testing:** Manual and Automation Testing, Software and Hardware Qualification, Reliability, Scalability, Functional, Regression, Performance testing, Swagger API testing.
- **Cloud Services:** Amazon Web Services (AWS), Azure, Google Cloud Platform (GCP)
- **Database:** MySQL
- **Tools:** Jira, Jenkins, Testlink, TestRail, GitHub, Confluence, Stash
- **Virtualizations:** VMware, IBM PowerVM

EXPERIENCES

Quality Engineer/Test Developer
IBM Turbonomic
Oct 2021 – May 2024 | Lowell, MA

- Led the hypervisor team, driving testing efforts and quality controls for Hyper-X team. Authored test plan, executed both manual and automation test cases using Pytest framework, improved regression test coverage, executed product sweep.
- Followed scrum methodologies within a 2-week sprint cycle. Participated in scrum team meetings, ensured test cases were written and reviewed, updated test results in TestRail, documented new features on the wiki page, submitted bugs in Jira, verified bugs fixes on time, and regularly performed TestRail audits to ensure tests were up to date.
- Played an integral role in the testing and successfully releasing key features. Submitted numerous quality bugs for new features and consistently validated bugs each sprint, increasing test automation coverage and improving regression testing capabilities, contributing to enhance product stability.
- Collaborated with IT Lab and team members to ensure a seamless lab transition from Turbonomic to IBM without interruptions.

Quality Engineer
Turbonomic
July 2021 – Oct 2021 | Boston, MA

- Executed regression test cases on Turbonomic web application.
- Executed cloud testing across multiple cloud services: AWS, Azure, GCP.
- Executed Swagger API testing on Turbonomic web application: Post, Put, Get, Delete

Software Quality Engineer IV
HPE SimpliVity
May 2013 – Aug 2020 | Westborough, MA

- Participated scrum ceremonies, sprint planning, grooming, retrospective and daily standup meetings.
- Authored test plans, executed manual test cases, and automated tests using Automation Testing Framework (ATF).
- Performed regression, integration, functional, product sweep, night ops testing.
- Submitted defects in Jira and verified defects fixes.
- Maintained test cases and test results in TestRail, ensuring comprehensive documentation.

Software Quality Engineer
CSC (DXC)
October 2010 – August 2012 | HCM, Vietnam

- Worked on Request to Payment project to process of sale orders from front-end to back-end systems.

- Created GUI test plan, executed manual test cases, executed automation test cases using HP Quick Test Pro.

PROJECTS

vCPU Scaling Controls
- Developed test plan for vCPU scaling functionality across multiple hypervisor platforms: vCenter, Hyper-V, Nutanix. This feature advanced control to automate compute resource management actions in compliance with vCPU scaling policies. It provided resize, reconfigure vCPU capacity of virtual machines (VMs) for more accurately.
- Validated behavior of vCPU resize actions when applying vCPU scaling policy to VMs.
- Executed regression tests on vCPU/vMEM resize actions, vCPU/vMEM reservations, sockets and core per sockets modification, vCPU capacity changes, hot add and cold add vCPU/vMEM resizing.

Lab migration
- Created a comprehensive list of VMs in new IBM lab to optimize On-Prem testing environment.
- Executed regression test cases against vCenter, Hyper-V, and VMM on new IBM lab.

Hardware Compatibility
- Validated Turbonomic generated actions that consider VM hardware version compatibility checks.
- Verified hardware compability on multiple ESXi versions in vCenter to ensure VM move actions were generated correctly. Ensured VM move actions to lower ESXi version were not suggested.

Rolling Maintenance
- Developed test plan for Rolling Maintenance to support Maintenance window default. Ensured no actions were suggested for a host during its maintenance window.

IBM PowerVM
- Developed test plan for PowerVM on IBM lab, supporting IBM Power8, Power9, Power10 environments.
- Validated PowerVM targets discovered, ensuring all VMs and Hosts seen in the UI matched those seen in target. Verified entity information, commodities, capacity and usage accuracy.
- Validated resize Processing Unit (PU) and Virtual Processor (VP) capacity for VMs.

Network Merge
- Developed and executed test plan for Network Merge functionality.
- Validated VM migrations across networks within a single vCenter and across vCenter servers.
- Tested VM migration against vSphere standard switch (vSS) and vSphere distributed switch (vDS).
- Validated all plans, reservations are successful when applying network merge policy.

Cloud testing
- Validated Savings/Investments widget, validate tenancy type across Cloud AWS, Azure and Google GCP.
- Validated Embedded Reports Cloud Savings Performance for Global scope, Embedded Data Retention.
- Validated Scale up/ Scale down to a different tier in AWS, Azure, GCP

Performance testing
- Executed manual performance testing on loaded customer topologies.

Regression testing
- Executed existing regression test suites for On-Prem, including: Hypervisor Mediation, Target Validation, VM Operation and Discovery, Host Operation and Discovery, VMs Action Executions.
- Validated common vCenter test suites such as: Fault Tolerance, VM affinity/anti-affinity, CPU resize up and resize down actions, Delayed Data Notification, CPUReady dashboard, vCenter Action execution of resize/reconfigure actions, and VMware HA-DRS-Tagging.
- When tested new features On-Prem, validated Cloud test suite to ensure no regression impact.
- Reviewed and updated new test cases for P1 bugs and added them regression test suite for periodic execution.
- Provided mentorship to other quality engineers to execute regression test suite.

SimpliVity GUI for VSphere Client Desktop
- Developed test plan, executed manual test cases for SimpliVity GUI vSphere Client Desktop with more than 250 test cases.

Deployment Manager
- Developed test plan, executed manual test cases for Deployment Manager, a GUI application to deploy HPE OmniStack hosts into a cluster in federation.

Arbiter Decoupling
- Developed test plan for Arbiter Decoupling, which ran on the computer hosting a vCenter server or on a Windows computer accessible to the hosts.

Datastore Management
- Developed and executed Datastore Management test plan, including: datastore creation, datastore deletion, federation node joining, federation node removal, and sharing/un-sharing datastore with compute node.

Intelligent Workload Optimizer (IWO)

- Maintained the IWO feature, based on vSphere Distributed Resource Scheduler (DRS) which automatically distributes VMs to balance compute load in a given cluster.
- Coordinated with offshore QE members to perform IWO automated regression test.

Long Distance vMotion

- Developed test plan for Long Distance vMotion feature, including: vMotion VMs across datacenters, vMotion VMs across vCenter servers, hot and cold VMs migrations, ensuring backups are associated to the migrated VM, and adding latency between datacenters or vCenter servers.

Event Manager Scale Out

- Deployed scale rig using ATF. Performed System Reliability Exercises (SRE) on scale rig. Captured performance for a successful SRE run (24 hours, x number of workloads).

Cluster Group Management

- Developed test plan to validate all dsv-cluster-group commands. Cluster Group Management is a group of clusters together to form a group for sharing certain cfgdb data.

Support vSphere 6.0/6.5/6.7/7.0 releases

- Validated the deployment and upgrade were successful, ensuring all SimpliVity features functioned as they did in the previous release, and supported mixed mode environments.
- Coordinated and provided early environment with vSphere (ESXi and vCenter) for cross functional teams to evaluate their components.
- Coordinated with offshore QE members to validate many ATF regression test suites.

Reliability and Scalability testing

- Used FIB tool (federation in the box) to configure federation with 100+ nodes.
- Ran SRE with the following automated jobs: Clone VM, Backup VM, Delete VM, Move VM, Delete Backup, Restore Backup.

EDUCATION

- **Master of Science in Computer Science** *(2025-Ongoing)*
  University of Massachusetts Lowell, Lowell, MA
- **Bachelor Degree major in Electronic Technology** *(2006-2010)*
  Ho Chi Minh University of Industry, Ho Chi Minh, Viet Nam

CERTIFICATE

- MCSA, CCNA, IBM Rational Performance Tester

AWARDS

IBM Culture Catalyst Award 2023

“I've had the pleasure of working with Quan for the past years. He not only thrives to ensure all product feature enhancements are high quality, but also constantly monitors for any regression impact for new features. Quan currently is leading one of our most important projects in Hyper X team. Quan is extremely diligent in his work and always meets deadlines. An example of his hard work is that this year he has contributed towards more than 220 stories, bugs and tasks. Quan is also passionate about automation. He increased our test automation coverage by adding new automation test cases for new features.”