**Ajay Varma Ganapathiraju**

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**919-948-9025**

**PROFESSIONAL SUMMARY:**

* Over **7.5yrs** of Experience in IT industry as aSoftware QA Engineerfor ClientsEMC² Corporation& Hewlett Packard.
* Experienced in GUI/CLI automation & manual testing of **Java**&**HTML** Web based applications and specifically automated with **Perl, Selenium WebDriver, TestNG, Silk Test**,**Test Complete, QTP**
* Experience with Programming Language **Java**, **PL/SQL**
* Extensive experience in QA, an earned reputation for meeting demandingdeadlines and delivering critical solutions on various levels of Quality Assurance for **Client/Server and Web-based applications**.
* **Proficiency in understanding Quality assurance role in all phases of** Software Development Life Cycle (SDLC).
* Experienced in **REST APIJSON**testing for **HP One View** Data Centre Management developed in Java.
* Experienced using **Eclipse** to write Perl Scripts, execute the **JUnit**, MAT, Integration test cases & acquainted with **GIT** Repository Version Control System.
* Proficient on **Automation** tools like **Selenium RC/WebDriver/IDE/Grid and QTP (Functional & Regression Testing), Jbehave, Cucumber, Jenkins, Hudson, SOAP UI, Jmeter** for testing Client Server and Web based Applications.
* **Experience in creating user acceptance test cases and supporting** User Acceptance Testing (UAT)**.**
* Experienced in **Writing** Design Specifications, **Automating** Test Scripts, **Reviewing** and **executing** the test cases.
* Proficiency in working with **Storage**&**Server** Domains
* Expertise in Performing **GUI** Testing, **Unit** testing, **Integration** testing, **Functional** testing, System testing, **User Acceptance** testing, **Regression** testing, **Stress** and **Performance** testing on Web based and Client-Server applications.
* Proficient in **Black Box** Testing and **White box** Testing.
* Actively worked in Software Development Models: **Agile**&**Waterfall** Methodologies.
* Knowledgeon**MAVEN** Project management tool for build creation.
* Good Knowledge on network storage solutions **SAN** and **NAS**.
* Basic Knowledge on **VMware Hyper-V, ESX;Network+ Comp TIA: TCS/IP, DNS, NTP, DHCP, Active Directory**.
* Hands-on running IO Tools for Performance Testing: **IOX**, **IOMeter.**
* Worked on Windows associated tools: **IOX** and **DAQ** (Disk Array Qualifier).
* Regularlyusing project management tools, **Jenkins**, **Rally** (Part of SCRUM-Agile team)**,BMC** Remedy for issue tracking, **HPQC** results update and tracking through RADAR&**QuIX**.
* Proficientin performing **Functional**, **Performance** and **Regression** Testing.
* Experience in doing Failure Analysis, Bug Tracking and Reporting.
* Solid Analytical Troubleshooting, Leadership Skills, Coordinating between Client, Onsite and Offshore Team.
* Good communication skills, interpersonal skills, team coordination and versed with Software Development processes.
* Strong aptitude towards learning new technologies like Cloud Computing, Big Data and Virtualization.

**EDUCATIONAL BACKGROUND:**

* **Bachelor of Technology** in **Computer Science** and Engineering from MVGR Engineering College (2003-2007).

**TECHNICAL SKILLS:**

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| --- | --- |
| **Testing Tools** | SilkTest (4-Script Lang), Automatos - Perl, Test Complete, SeleniumWebDriver,QTP, IOX, IOMeter |
| **Languages** | C, Core Java, Javascript, XML, HTML |
| **Databases** | PL/SQL, Postgres SQL |
| **Project Management Tools** | GIT, CVS, Jenkins, Rally, HPQC, BMC Remedy User, Virtual Test Suite, QuIX |
| **Networking Platforms** | SAN (Storage Area Network), NAS (Network Attached Storage) |
| **OS Platforms** | Windows XP/2000/NT/2007, Windows 8, UNIX, Linux |
| **Software Packages** | Microsoft office, MS Excel, Microsoft PowerPoint, MS Word. |

**CERTIFICATIONS:**

* + EMC Storage Technology Foundations
  + EMC CLARiiON Solutions Specialist
  + EMC SAN Specialist for Storage Administrator

**Trainings Attended:  
Storage Domain:**

* + EMC Celerra ICON for Engineering
  + SAN Management.
  + EMC VNX and VNXe Architecture.

**Testing Tools:**

* + Selenium Automation Tool
  + Test Complete Automation Tool

**PROFESSIONAL EXPERIENCE:**

**Project #7: SMAN Server Management (OneView)   
HP Client, Fort Collins – CO 11/2014 – Present**

**Role: Test Automation QA Engineer (HP OneView Proliant Servers)**

**Project Description:**HP OneView is the industry’s first “Converged Infrastructure” management platform with an entire “software-defined” infrastructure for Data Centre Management. It consists of One View for a converged infrastructure such as, server, network & storage. By taking the expertise and encouraging the use of templates to define the infrastructure in the software via REST API.

The Storage/Network/Server Enclosure administrators define the templates to be used by the converged management solution. From the beginning, you can set up the appliance through a REST API. Then you can configure the templates. Everything can be completely automated, and built to a great new UI on top of it.

**Roles &Responsibilities:**

* Quality Engineer for the Server Management team within the HP OneView R&D program
* Experience Testing HP OneView product using Selenium automation.
* Primarily responsible for defining, writing and executing tests for the Server Management component of HP OneView.
* Experienced REST API JSON (POST GET Server/Interconnect objects from OneView Appliance.)
* Used GIT repository to check-out & execute JUnit/MAT/Integration test cases on Eclipse.
* Involved in defining test automation strategy and test scenarios, created automated test cases, test plans and executed tests using Selenium WebDriver and JAVA.
* Triaged test failures, other issues and assisted developers in identifying the cause of problems found during testing
* Attended daily scrum meetings & part of sprint planning to estimate the user stories which helps in understanding the product & writing the test cases.
* Took care of Installations of HP OneView on Virtual Machines & state-of-the-art HP hardware Thunderbird appliance and upgrade the firmware compatible with OneView builds.
* Worked on distributed test automation execution on different environment as part of Continuous Integration Process using Selenium Grid and Hudson/Jenkins.
* Managed Server Management Wizard of the Week (WoW) to address major interrupts or hot issues that arise in HP One View
* Used management tool QuIX (Quality Information Exchange) for issue tracking& bug reporting.

**Environment:**HPOneView, ThunderBird Converged Infrastructure, HP Proliant Blade Servers, VMware Vsphere, REST API, PostgresSQL, Eclipse, Java, Javascript , Junits, Rally, Jenkins, HPuX, Windows, Linux.

**Project #6:EMSD Unity Delivery (Stream Management; GUI Smoke&ANT Testing)**

**EMC Client, RTP – NC & Nashua - NH 5/2014 – 10/2014**

**Test Automation QA Engineer (Storage)**

**Project Description:**For the EMC product ‘Beach Comber’, Stream Management team guide the developers on using the right collaboration steam based on where the code changes were made, to minimize the merge conflicts.System team collaboratively works with CA team (Component Area) to publish best practices and policy like, update, rebase, promotion frequency and standard build procedures.System team will work with CA teams on integration plan and CA should promote to the collaboration streams at each iteration boundary.

**Roles & Responsibilities:**

* As a stream manager, maintained the collaboration steams upc-apps-cs, upc-khp-bugfix-cs, upc-khp-sp1.
* Part of Stream Management, automated GUI Smoke Test cases with Testing Tool ‘Test Complete’.
* Regularlypromote the transactions from Collaboration Stream to Merge Collaboration Stream, i.e. CS to MCS, followed by creating the MCS build from Build Forge interface.
* Worked on proof of concept to Automate Functional and Regression Testing using Selenium tool.
* In the delivery workflow, ran Automated GUI Smoke Test cases and ANT-Automated Nightly Test case of levels SL1 & SL2 for created MCS build.
* Ran NDU and Reinittest cases from downstream to upstream builds i.e. from KH+ to KH+and between different streams i.e. KH SP1 RTM to KH+; KH RTM to KH+ by creating Test Set & Test Bed for Automatos-x and triggering the execution.
* Part of the iteration, analyzed the failures from executions, collaborated with Developers to prioritize the issues and get them fixed ASAP for next iterations.
* Created a project on the above work flow and updated the results to HP Quality Centre.

**Environment:**EMC products VNX/VNXe, Automation,Perl-AutomatosX, Test Complete GUI, Hardware Setup, Manual Executions, Jenkins, Java, Javascript, BMC Remedy, HPQC

**Project #5:USD Data Mobility (LUN Replication)**

**EMC Client, RTP – NC 1/2014 – 4/ 2014**

**Test Automation QA Engineer (Storage)**

**Testing Methodology: Agile**

**Project Description:**ReplicatorV2 is an IP based replication solution and it uses Replication Connections to move data between source and destination systems. Replication provides the remote data protection for pool LUNs. The feature delivers support for application replication of pool LUNs between KittyHawk systems, using Unisphere and ReplicationV2. Replication relies on snapshot technology. The Unisphere and UEMCLI interfaces would provide the interfaces for easy configuration and management of application replications on pool LUNs.

This enhancement applies to the use case of creating a replication session for a KittyHawk storage resource to a target KittyHawk storage system. The design for KittyHawk will make the destination storage resource creation a more automated process with the sizes pre-filled based on a source resource. This functionality is also supported for replication of storage resource between KittyHawk and VNXe.

**Roles & Responsibilities:**

* Automated Local and Remote GUI related test cases with testing tool ‘Test Complete’.
* Manually executed functionality related scenarios: LUN Offline, LowMemory, LUNTrespass, Network Down, SP Crash
* Part of manual setup, reinitialized the arrays to the latest bundle for functional testing.
* As a daily iteration, created, assigned and updated User Stories and Tasks to the above mentioned scenarios in the Project management tool ‘RALLY’.
* Actively involved in daily Scrum meetings as part of PSI 4 Delivery.Regularlycollaborated with developers on the Replication feature and doubts involved.
* Created a project and updated the results to HP Quality Centre.

**Environment:**EMC VNXe, Writing Test cases, Java, Javascript, Test Complete GUI automation, Hardware Setup, Manual Execution, BMC Remedy, HPQC, Scrum Meetings, Rally

**Project #4a:USD FQE KH MCC (Multi-Core Cache)**

**EMC Client, Bangalore – India 7/2013 – 12/2013**

**Test Automation QA Engineer (Storage)**

**Project Description:**MCx significant objective is CPU core scaling. MCx takes advantage of multiple CPU cores that intelmicro architecture offers (e.g. 8 cores in Sandy Bridge, 10-cores in Ivy Bridge). CPU scaling has become a fundamental requirement for further technological growth. As the no. of CPU cores and processor speed grows in the future, the storage systems software stack must be able to scale with additional processing power.

MCxchanges the way VNX/VNXe handles threads, as well as thread distribution. It spread the threads across other multiple CPU-cores which cause the scheduling CPU-core to spend time managing the distribution. Every Front-End and Back-End has a preferred core and alternating cores assignment.

**Roles & Responsibilities:**

* Handled Various levels of Functional testing associated with software stack MCC/MCR/MCF
* Automated features using Test Complete (GUI) and Automatos-Perl (CLI EMC Specific)
* Used IOX tool for Data Integrity, Multiple Data Patterns, Random and Sequential IO which is compatible with both Windows and Linux OS.
* Features covered in MCC Automation: Memory Persistence, DataIntegrity
* Features covered in Manual Testing: MemoryPersistence, DriveFailures, SPFailures, CacheGrowShirk, DataIntegrity, LargeConfig, DiskZero, IO, MetaData
* Manually ran Lab-intervention test cases (e.g. to successfully load the cache image from degraded vault drive while SP poweroff and physically remove BBUs to observe the vault Load events)
* As part of the base setup, Reimage and Upgrade (NDU – Non Disruptive Upgrade) Arrays to latest build.

**Environment:** Writing Test cases, EMC VNXe, Perl Automatos X - CLI automation, Hardware Setup, Manual Execution, BMC Remedy, HPQC, Scrum Meetings, Rally

**Project #4b:USD FQE KH DAQ (Disk Array Qualifier)**

**EMC Client, Bangalore – India 7/2013 – 12/2013**

**Test Automation QA Engineer (Storage)**

**Project Description:**The DAQ **(Disk Array Qualifier)** is a Windows Host-based data integrity test suite, with a test philosophy to perform write / read / verify on logical disks in combination with a range of administrative commands. The DAQ test suite is used by various Engineering and Quality Assurance Departments within EMC². The DAQ is configured and run based on user selectable options.

**Roles & Responsibilities:**

* Using DAQ tool, performed Data Integrity using Sequential/Random/Dependent IO
* Using DAQ tool, followed methods like, Trespass LUN from one SP to Peer SP and Fault Insertion by simulating the failure
* Analyzed the logs for Data Miscompare, i.e. data that was read which does not compare with data that was previously written.
* Part of the setup, Reinit/NDU the array. Assign LUNs to the host for IO.
* On host, Uninstall Powerpath&MultiPath IO, and Install DAQ from EMC Integration Site.
* Install OC-Manager (One Command Manager) to find the SCSI Port targets that are attached to the array. Alternate method is to get the ports numbers from REGEDIT (Registry Editor) and set it on the DAQ window properties of command switch for routing the IO.
* Install the packages .NetFramework and Visual C++ and ensure host is rebooted after all the configuration setup.

**Environment:** EMC VNX/VNXe, In-house Disk Array Qualifier Tool, Windows, Hardware Setup, Troubleshooting Issues, BMC Remedy, HPQC, Manual Executions

**Project #3:IMT (In Market Test) (Service Pack Project)**

**EMC Client, Bangalore - India 11/2012 – 7/2013**

**Test Automation QA Engineer (Storage)**

**ITA (IT Analyst)**

**Project Description:**IMT is responsible for testing all service pack and hot fix release to installed customer base. IMT also participates in testing/reproducing issues reported by customers that were not discovered in in-house testing. Also, test all areas of the EMC USD product family. IMT also tests disk drive and hardware changes, enhancements and replacements that will be release to the existing customer base.

The entire Service Pack Project is based on testing Mid range and low range products from N to N-1 software releases which includes Elias, Barossa, Hubbard, Inyo, VNX Unified (File & Block) GUIand CLI and VNXewith the help of testing tools, Silk Test & Certify for GUI and UEMCLI framework for CLI. Since this is a Cycle process, it was run from A-B, B-C in a weekly time frame by meeting the deadlines and criteria.

**Roles & Responsibilities:**

* In the testing cycle process and part of the work flow, identified the customer and non-customer issues on Action Remedy and gather the coverage of hardware requirements as part of initial review process.
* For a new customer issues, automated test cases in SilkTest to the respective feature/suite.
* Followed by, with associated ARs, identified the test suites for FSEFTSM team and updated the suites in HPQC that need to be run.
* Setup the environment for Test Execution for frameworks SilkTest/Certify/UEMCLI
* Created new Builds for SilkTest QES Framework for GUI associated test cases.
* Upgraded/Fresh (i.e. NDU Non-Disruptive Upgrade) and installed(i.e. REINIT) Arrays to the given promotion build using USM (Unified Service Manager) Application or through Linux Development Machine.
* Upgraded arrays with I/O using IOX or IOMeter Tools to check the Data Integrity
* Ran sanity and regression suites that are associated with Frameworks: Silk Test, UEMCLI and Certify of different hardwares VNX (File and Block)andVNXe.
* Analyzeddefects found in Official executions and reporting them using Issue Tracking tool.
* Fixed the bugs found in Test cases/Scriptsassociated with SilkTestand checked-in back to the Repository.
* Verified the Customer and non-Customer issues manually on their respective promotion bundles
* Above Actions were done on a daily basis until there is no enough time left in the cycle to get fixes in place, at this point had to manually run all the tests that had not yet passed
* Sent emails to Development team requesting an ETA for a fix for ARs that were raised during the execution phase. All deferred ARs are marked as zapped
* Worked on Service Pack Releases: Barossa, Inyo, Elias, VNX, VNXe

**Environment:** EMC VNX/VNXe, GUI SilkTest Automation, Windows, Hardware Setup, Bug fixing, Troubleshooting Issues, BMC Remedy, HPQC, Manual Executions

**Project #2: EMC USD Mgmt EFT (File& Block) Unified VNX**

**EMC Client, Bangalore - India 4/2010 – 10/2012**

**Test Automation QA Engineer (Storage)**

**Testing Methodology: Waterfall**

**Project Description:**The VNX series is based on an industry leading architecture that allows you to configure purpose built components that are designed specifically for different connectivity options like: SAN (i.e. block connectivity with iSCSI, Fibre Channel or Fibre Channel over Ethernet), NAS (i.e. CIFS, NFS with pNFS or Multi-Path File System). It addresses each with its purposed built modular architecture, simultaneously. With new Modular Architecture, EMC has packaged the X-Blades into a NAS gateway model. This gateway supports FC SAN connect to EMC Block storage (Symmetrix, VNX and CLARiiON) and scales with support for up to four storage arrays. High range VNX Models include (VNX5500, VNX5700, VNX7500)

EMC Unisphere is Web-based software that allows you configure, administerand monitor the EMC VNX hardware. By consolidating the management of both File and Block into one GUI, EMC Unisphere gives you an overall view of what is happening in your environment. Wizards offer the opportunity to simplify the completion of administrative tasks.

**Roles & Responsibilities:**

* Written design specifications and determined test plans for functional and integration testing features to the given F-Specs.
* Automated test cases to test the new features of EMC Unisphere using SilkTest Tool.
* Manually executed the new features of EMC Unisphere using VTS internal tool.
* Use of Issue Tracking Tool for allocation of defects and tracking the issues.
* Maintenance of Test suites already automated and reporting the defects found in regression.
* Coordinating with Product Developers in Closing the Product defects.
* Fixed bugs found to the maintained features that ran for Golden runs.
* Reviewing the test cases automated by Peer associates and ensuring that standards are followed by Parser Tool.
* Installation and Upgradation of EMC NAS software.
* Fixing the issues (Lab related) found during Installation/Upgradation.
* Handling Sanity Testing.
* Triggering Test Suite executions using Virtual Test Suite.
* Raising AR’s (Action Request) for the defects found during Sanity/Suite Executions.
* Organized Offshore-Onsite Co-ordination on new automation features and updates from Clients.
* Assisted Infrastructure Team members in setting up the Silk Test environment.
* Consolidating the execution status reports.
* Prepared Induction Plan to new team members and explain the NAS Architecture, its features and Silk Test automation coding standards as part of the responsibility.

**Environment:** EMC Celerra, Clariion, GUI SilkTest Automation, Windows, Hardware Setup, Bug fixing, Troubleshooting Issues, BMC Remedy, HPQC, Manual Executions

**Project #1: EMC-NAS-Quality Assurance**

**EMC Client, Bangalore - India 2/2008 –3/2010**

**Test Automation QA Engineer (Storage)**

**ASE (Assistance Systems Engineer)**

**Testing Methodology: Waterfall (Functional Testing)**

**Project Description:**EMC Celerra Manager is Web-based software that allows you to configure, administer, and monitor the Celerra Network Server. By consolidating the management of multiple devices into one GUI, Celerra Manager gives you an overall view of what is happening in your environment. Wizards offer the opportunity to simplify the completion of administrative tasks.

**Roles & Responsibilities:**

* AutomatedNAS QA GUI Interface test cases using SilkTest tool.
* Fixed automated test cases which were tracked and filed as part of Failure Analysis.
* Used tool CVS repository (Concurrent Version Systems) to check in the code and track the changes.
* Reviewed test cases automated by peer associates.
* Manually executed the new features of EMC NAS Mgmt Application.
* Maintained and Updated checklist written for coding and developing new test suites.
* Triggeredlarge amount of Test Suite executions with Virtual Test Suite tool, esp at the period of Golden Runs and RTMs (Release to Market).
* Raised enhancement requests and defects using BMC Issue Tracking tool.
* Maintained Test suites owned by me.
* Collected Support Materials and collaborated with Developers in closing the Product Defects.
* Maintained MOM (Minutes of Meeting); also organized and part of Cross-Feature trainings which initiated through Knowledge Sharing Sessions.
* Mentored newly joined team members on Celerra Manager Features.

**Environment:** EMC Celerra, Clariion, GUI SilkTest Automation, Windows, Hardware Setup, Bug fixing, Troubleshooting Issues, BMC Remedy, HPQC, Manual Executions