**Manoj Namburi**

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**PROFESSIONAL SUMMARY:**

* Software Engineer with 10 years of industry experience in the areas of **automation framework development, CI/CD, and API automation** using Python, Jenkins, and Selenium.
* Previously Worked in Dell for developing automation solutions for manufacturing Dell Thin clients and processor manufacturing at AMD R&D.
* Developed API automation suites using Pytest, Python, Pytesthtml and Allure reporting for smoke and unit testing for our BDD test suite.
* Generated various high level documentation for software design and able to interpret and plan the test infrastructure adhering to approvals and reviews.
* Developed Cypress automation for UI using Javascript and Cypress. Maintained the Cypress repository on gitlab for version control.
* Strong Hands-on experience in **CI/CD development for automation suites (Jenkins)** for testing various product lines of CPUs and GPUs.
* Proficient in utilizing Behavior-Driven Development (BDD) principles to create and execute comprehensive Gherkin test scenarios and ensuring end-to-end test coverage and functional test scenarios.
* Developed BIOS automation suite to test device components of Dell Diags 2.0 to run in preboot and recorded results in the cloud dashboard.
* Developed API automation test suite for Bios Firmware Upgrade Over the Air (FOTA) and reduced the test time by 70%.
* Tested mobile applications using Appium test scripts and conducted Browser based testing for iOS and Android.
* Developed automation solutions for Dell Wyse Management Suite (WMS) web application for front-end and its web services using Groovy
* Expert in writing **CI/CD pipelines using Jenkins(Groovy),** Python, and Shell with strong debugging knowledge. Certified Cloud Practitioner (AWS)
* Proficient in utilizing Behavior-Driven Development (BDD) principles to create and execute comprehensive Gherkin test scenarios and ensuring end-to-end test coverage and functional test scenarios.
* Utilized Test-Driven Development (TDD) methodologies to drive the design and development of automation frameworks for microservices and services, ensuring robustness, reliability, and maintainability of automated test suites.
* Automated ransomware patch deployment using **Python, SCCM, and Selenium** resulting in a 100% automated solution, saving the testing team significant effort.
* Critical skills include developing automating testing using Selenium WebDriver and testing and debugging GUI and multi-application environments.
* Good working and hands-on knowledge on AWS systems, S3, Opensearch, SNS and SQS to set up cloud infrastructure for the test automation.
* Gathered and analyzed business requirements and produced specification documents for new clients and project requests.
* Spearheaded many POCs for automating workflows in Telemetry and Dell Support.
* Expert in developing End to End cloud automation suites that run across multiple environments (**BIOS, OS, Web**) to monitor the cloud automation suites.
* Ported the end-to-end automation suites successfully onto CI/CD pipelines using Python, Jenkins, PowerShell, and Shell scripting.
* Proficient in **Ransomware patch testing (Microsoft)**, OS development of Windows (10, 8, 7), and Linux flavors for Thin clients
* Strong experience with SOA architecture which includes RESTful Web Service and SOAP API Testing.
* Excellent IT administration skills with a high focus on Security and Cloud.
* Hands-on knowledge of **virtual machine hypervisors** (SCCM, VMware vSphere, Hyper-V) and Virtualization software like Citrix, and RDP. Worked on automation POCs of hypervisors.
* Strong agile/scrum development practices to drive and deliver product releases and a strong team player
* Make recommendations for new metrics, techniques, and strategies to improve team performance and measurement in the future.
* Possesses strong logical thinking and problem-solving skills with a deep understanding of algorithms and data structures
* Quickly adapt to new methodologies, tools and technologies, and domains
* Good knowledge of the Software Development Life Cycle (**SDLC**) and experience utilizing methodologies like Waterfall, Agile (Test Driven Development, ATDD, SCRUM), and Kanban.
* Experienced in working as a developer engineer in **SRE** culture to adopt a hybrid role as a developer and platform engineer.
* Experience in Version Control tools like **GIT, and SVN**.Well versed with GitLab checkin for versioning.
* Effectively handled Patient data, PHI, and EDI 834 Files containing sensitive patient data using **FACETS** for an insurance provider client.
* Strong knowledge of Object-Oriented Analysis and Design, Use Cases, Sequence Diagrams, and Class Diagrams.
* Experience working with Monolithic and Microservice-based distributed systems coding for **on-prem and cloud** platforms.
* Developed applications using both SOA and API-based infrastructures for different domains.
* Created automated test
* Revamped and automated testing procedures by creating and executing automated test cases with pytest.
* Experience working with embedded C and C++ and have written drivers and applications for automation.
* Knowledge of Performance Testing, Regression Testing, Accessibility Testing, Database Testing, Mobile Testing,Web Application Testing, Web Service Testing, Security Testing

**Education:**

**Master of Engineering - Electronics and Communication Engineering**

Andhra University, India

**Professional Experience:**

**Actalent, Ottawa, Canada**  October ‘21 – Till Date

**Role: QA Automation Engineer / SDET**

*Developed API endpoint validation suite using PyTest, Java, Python, Swagger and achieved 100% test coverage. Worked on creating UI validation suite using Cypress, and worked on functional validation suite using Selenium.*

**Responsibilities:**

* Developed API endpoint validation suite using PyTest, Swagger, and Python for validating API endpoints, ensuring critical connectivity for the devices, and achieving 100% test coverage.
* Designed and developed automation infrastructure to support pre-boot automation, OS automation with cloud support to support hardware testing and device testing.
* Leveraged Java and Python to design and develop automation frameworks for services, aligning with 10+ years of overall automation experience.
* Applied Test-Driven Development (TDD) and Behavior-Driven Development (BDD) methodologies to ensure robustness and reliability of automated test suites, in line with strong understanding of software/testing methodologies.
* Hands-on troubleshooting of critical issues in design and code, demonstrating ability to be hands-on with technology.
* Employed Apache Maven for managing project builds, dependencies, and documentation, ensuring efficient project management and streamlined development processes.
* Collaborated with cross-functional teams to standardize Maven usage and best practices across projects, promoting consistency and efficiency in development workflows.
* Designed cloud upload and email automations for the smoke test results and triggered it via CI (Jenkins)
* Implemented a unified solution to run python-pytest for API automation and Playwright for UI testing. Developed its CI using Jenkins for the whole suite. Utilized AWS for the cloud infra using boto3.
* Acted as an SME for 3 of the components and trained the Junior Engineers, New Hires, and Interns on the validation aspects of my modules. Handled 7 resources for automation and functional validations.
* Implemented UI validation using Cypress automation tool and identified over 200 UI defects through automated testing.
* Utilized SonarQube for code coverage and code quality analysis, aligning with experience with SonarQube code coverage and code quality.
* Implemented performance testing using Performance Testing tools, showcasing experience in this area as per the job description.
* Implemented Gherkin based test scenarios to functional test suite and integration test suite for automotive SaaS application for OTA based software patch updates for automobiles.
* Created automation suites for validating hardware and software solutions for capturing, recording, and streaming audio and video.
* Worked with broadcasting thin clients used in various industries, including education, healthcare, enterprise, and broadcasting.
* Managed and configured access permissions for hypervisors and Kubernetes pods using role-based access control (RBAC) and security contexts.
* Maintained compliance with industry standards and best practices for security and access control.
* Monitored and audited access logs to identify and address security risks or vulnerabilities.
* Used Python multiprocessing to concurrently run loads on the worker to improve performance.
* Developed API endpoint validation suite using Jenkins, Kafka, Slack, and Python to ensure critical connectivity for the devices.
* Conducted web application testing using Pytest, Cypress for API and UI testing.
* Implemented scripts, and built server deployment framework, and GUI automation framework.
* Analyzed endpoint diagnostic network logs, packet data, and codec quality for the stream and was involved in Post-production support of the product.
* Involved in all phases of SDLC from requirement gathering, design, development, testing, production, user training, and support for a fast-paced production environment.
* Developed an automation tool to validate UI components of the web application (Admin Dashboard) for RLS networking systems using Python, Selenium, and SQL coding. Developed SQL scripts for automation.
* Optimized data collection using Python, Kafka and achieved a 30% boost in response time.
* Extensively tested data-driven application code base and its web application.
* Performed Mobile application testing using Appium and browser compatibility testing.
* Developed web app using Django web framework (Python) for the analysis report storage.

Environment**:** PyTest, Python 3.9, Java, Selenium, SonarQube, Allure, Robot, Insomnia (REST), CyPress, Tekton, Docker, Git, Allure, HTMLParser, Bitbucket, Selenium, Jenkins, PHP, Docker, AWS, Git

**AMD (Advanced Micro Devices), Toronto, Canada** October ‘20 – October ‘21

**Role: Quality Engineer 2**

*Developed cloud-enabled automated testing suites to test AMD CPUs and GPUs and reported them on to cloud dashboards. Developed CI/CD pipelines to support Build and Release cycles for FW components of APU and GPU product lines to build nightly components, Graphics, and firmware stack testing*

**Responsibilities:**

* Developed frameworks for running the code compliance and unit testing per patchset using Python, and Groovy to improve code quality and resolved more than 5Million coding standard defects.
* Managed test farm to execute tests on various GPU and CPU product lines to support Dev and QA. Automated documentation generation from the header files to save 20% of the average developer’s time using Doxygen and Shell scripting.
* Drive the setup and streamlining of Jenkins CI Delivery and Test for USB4 firmware and other related Platform Firmware
* Developed Pytest framework for GPUs and CPU validation and developed CI/CD infrastructure including HW and Lab setup.
* Developed Objective-C applications to run on Jenkins CI infrastructure for processor validation for GPU Team.
* Tested Xccode test case work books and provided results and automation insights to the team.
* Handled Objective-C test workbook and Linux CI validation for Linux builds.
* Create new data analysis workflow processes, associated monitoring, and alerts. Developed Selenium (Python) scripts to achieve test coverage.
* Lead the integration of it into DevOps and setting up Continuous Integration Environments.
* Utilized Gherkin-based test automation frameworks to perform end-to-end testing for web applications, APIs, and backend systems, resulting in robust and reliable software releases for new processors’s firmware.
* Define and Build up tools and dashboards to allow the teams to properly manage and detect issues with their release
* Work with multi-site teams in release management of the Firmware Stack into AMD Graphics Driver, or the Video or System BIOS
* Conducted distributed system testing using Jenkins and tested enterprise system integration projects.
* Utilized standard Kafka and Python modules such as CSV, itertools and pickle for development.
* Performed different testing methods including Functional testing, Unit testing, Integration testing, Black box, White Box, Exploratory, Interoperability, and web application testing.

Environment: Python 3.7, REST Assured, Postman, DediProg, XcTest, Bitbucket, Selenium, JSON, Linux dev, Jenkins, Groovy, PowerShell, Unix, Doxygen, Github, Jenkins, ProxMox

**Dell Technologies, Bangalore, India** July ‘17 – February ‘20

**Role: Automation Developer (BIOS)**

*Designed & developed automation suites to support pre-boot, OS, and Web automation using Django, REST, and PowerShell for Dell Diagnostics software test suite for hardware testing. Developed applications and drivers for automated error injection, effectively saving 100% of shipping costs of faulty hardware across different R&D centers.*

**Responsibilities**:

* Integration and Functional testing of Firmware Upgrade Over the Air (FOTA) to upgrade BIOS FW daily builds remotely.
* Built and tested pizza box models for newer Dell Thin clients and Laptops for preboot environment.
* Integration of newer BIOS and flashing the chip with the newer BIOS builds and testing them using Dediprog software.
* Developed Drivers and Applications using Objective-C for validating reboot applications and HW components.
* Created and implemented viable testing routines with the test plans created in JIRA and achieved complete test coverage
* Developed continuous delivery testing suites to integrate OS Stress tests, Display, and graphics tests to diagnose defects.
* Outlined the complete process flow and documented the data flow and the possible changes in the future in the confluence.
* Designed test monitoring system using Python, pyautogui, Flask, Postman, and Docker and implemented ML model.
* Designed and delivered lab automation solution to validate security patches, and bug fixes on 50 Thin client platforms simultaneously from Microsoft. Developed automated WannaCry ransomware security patch testing.
* Developed Windows 10, and 8,7 OS releases to ensure secure patched OS for embedded platforms as an OS developer.
* Designed a test framework to check all the OS restrictions, and errors at the boot time and raise tickets on the JIRA server
* Managed builds and wrote build scripts for the web-based applications and used Sharepoint.
* Used Python and Django to create XML processing, data exchange, and business logic implementation.
* Developed entire frontend and backend modules using Python on Django Web Framework
* Used Jenkins for continuous integration, and GitHub for version management for building the application in the cloud leveraging AWS API and Kafka. Involved in building and maintaining cloud-based infrastructure on AWS.
* Worked on implementing and executing manual and automated(unit, functional, integration) test cases using pytest, pytest fixtures, pytesthtml, pytest-xdist for multithreading.

Environment: UEFI, Client-Server, Django, GPU benchmark testing, JavaScript, PyAutoGUI, HTML5, Prime95, ProcMon, Git, SVN, Batch Scripting, Selenium, boot process, ThinClients, Python (2.7x, 3x), PowerShell, Selenium, PyAutoGUI, Sikuli, ThinClients, python, matplotlib, C#, python-docx, JavaScript, SharePoint

**Infosys Limited, Hyderabad, India** Mar‘14 – July’17

**Role: Systems Engineer**

*Worked on developing test data management and test data creation automation modules to provide efficient solutions for healthcare clients. Handled PHI Data effectively. Deployed and worked on the JDBC API connectivity.*

**Responsibilities:**

* Planned and created automation deliverables to validate functional requirements using HP UFT to test products.
* Worked extensively on the RELICC project to work on the newer Race and Ethnicity requirements of the Patient data and handle EDI 834 Files.
* Written various POCs using Java coding and implemented new features in Production environment.
* Performed Functional and user acceptance testing of multiple website features of insurance clients. Development and maintenance of test scripts, and test cases, and identified new error paths.
* Created an automated test data creation system using Excel macros and SQLServer thereby increasing test efficiency by 20%.
* Identified and recorded product defects and worked with the dev to resolve them
* Developed and Maintained the Datawarehouse (SQL Server) for the application.
* Developed scripts for build, deployment, maintenance, and related tasks using Jenkins, and Docker.
* Used DataDog for application performance management, and created dashboards for server health checks and network performance monitoring.
* Experience in designing and developing automation solutions using Agile development practices.
* Trained in automation testing concepts, tools, and frameworks - Java, Selenium, Appium, TestNG, JUnit, JDBC, and Cucumber.
* Gained hands-on experience in creating and executing automated test cases for web and mobile applications.
* Worked on various automation testing projects in a team environment and simulated various real-world test scenarios.

Environment: Python, HP UFT (VB), Facets, SQLDeveloper, HP ALM, JDBC, Hibernate, Maven, SQLServer, RestAPI, Selenium, SVN, Java

**Skills:**

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| Languages | Python, Java, Groovy, Embedded C, UEFI, JavaScript, C, Visual Basic, Bash |
| Database: | MongoDB, Sqlite3, MySQL |
| Web Technologies | HTML, CSS, XML, jQuery, AJAX, ReactJS |
| Frameworks | Selenium, UEFI, Cypress, PyTest, TestNG, JUnit, Cucumber, Robot, SoapUI, REST, Allure |
| Version Controls | Git, SCM, CVS, SourceTree |
| Methodologies | Agile, Scrum |
| IDE's | Visual Studio Code, Pycharm, Eclipse |
| Shell | Batch, Powershell, Shell scripting |
| Cloud Technologies | AWS S3, AWS Lambda, AWS EC2, GCP |