Ramya Mohanan

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**PROFESSIONAL SUMMARY**

* Experienced in implementing different automation development efforts in **Agile/Scrum** & **Waterfall** development environments.
* Experienced in all stages of Software Development Life Cycle (**SDLC**), Software Test Life Cycle (**STLC**) and test methodologies.
* Experienced in designing and implementing different automation frameworks from scratch like Page Object Model , Data Driven framework with different locators like XPATH and CSS selectors.
* Expertise in Selenium Automation using Selenium IDE, Selenium WebDriver, **Selenium Grid, Gherkins, Cucumber, SoapUI, TDD, BDD and Maven.**
* Performed Continuous Integration (CI) and Continuous Deployment (CD) using **Jenkins** and scheduled the tests to run at specific time.
* Experienced in designing customized **Hybrid framework**(Keyword Driven & Data Driven) using  **Selenium WebDriver, Page Object Model (POM) and TestNG.**
* Experienced in performing **cross-browser , compatibility testing** to test whether the web applications are working as desired with different browsers like Firefox, Chrome, IE, Safari and with different operating systems like Windows, Linux and Mac OS.
* Automated regression and functional testing of application using **QTP**.
* Experienced in Data warehouse testing, Client-Server, Database migration and Database testing.
* Strong understanding in Analysis, design, development, testing and implementation of business solution.
* Skilled in troubleshooting **UNIX** and **Python** scripts.
* Experienced in testing **ETL** (Informatica and Pentaho) Transformations and Mappings and creating test data for testing practices covering various scenarios.
* Excellent problem-solving skills with a strong technical background and affable interpersonal skills.
* Performed various testing like Unit Testing, Integration-System Testing, Regression Testing, and User Acceptance Testing. Other activities included archiving the test execution logs and publishing the User Acceptance test execution logs to the respective stake holders.
* Experienced in production support activities.
* Performed Regression Testing on weekly builds.
* Expertise in developing, estimating, documenting and executing test cases manually and generating automated scripts using Selenium WebDriver.
* Experienced in using testing suites to integrate test cases in Selenium.
* Experienced in developing manual API tests using **Postman**.
* Proficient in developing API automation scripts with **REST API** libraries in PyCharm IDE.
* Written Test Scripts based on the Business requirements and executed Functional testing and data validation, data reconciliation with defect correction and retesting, followed by regression and performance testing.
* Tested using multiple RDBMS including **Oracle, SQL Server and PostgreSQL**.
* Involved in gathering and analyzing the user requirements in coordination with Business Analysts.
* Performed Unit, Integration, and Regression testing to validate report and mapping functionality.
* Involved in extensive data validation using SQL queries and back-end testing.
* Performed Sanity Test, Load/stress Test, Performance Test, GUI Test, Functional Test, and Regression Test during testing phase of every project.
* Proficient in working with AWS services like **S3, EC2** and IAM.
* Used various features including gadgets, bulk updates, filters and labels in **JIRA** to generate reports and statistics shared with customers in a timely manner.
* Organized QA review meetings and participated in peer reviews.
* Designed , developed and implemented an efficient release management process.
* Designed and implemented change management process.
* Handled multiple projects with minimal supervision.
* Excellent troubleshooting, defect tracking and reporting skills.
* Excellent interpersonal, communication and presentation skills.

**RELEVANT WORK EXPERIENCE:**

**TriNetX, Cambridge, MA Oct 2015- Till Date**

**QA Engineer**

**Environment:** SAP Data Services, Oracle SQL Developer, SSMS, pgAdmin III, Python 3.6, Google Big Query, Visual Studio Code, I2B2 Web Client, JIRA, Selenium Web driver, Cucumber , Gherkin, REST API,SOAP UI, Eclipse IDE, PyCharm IDE, Postman, GitHub, Box, SharePoint, Confluence, MS Excel, Windows, MSYS, Virtual Windows and Linux Box.

**Responsibilities:**

* Performed **BDD** (Behavior Driven Development) with Data Driven Test Automation Framework using **Cucumber** Features, Scenarios and Step Definitions in **Gherkins** format.
* Designed and implemented Selenium WebDriver Automation Framework for Smoke test and Regression test using **TestNG**.
* Created a set of smoke tests designed to run on each supported browser and setup Selenium Grid for testing.
* Performed System, Integration, Smoke, Sanity, Functional, End to End, Positive and Negative using Selenium WebDriver, TestNG and Python (PyCharm IDE) and monitored the behavior of the applications during different phases of testing using testing methodologies.
* Developed Automation framework using **Selenium WebDriver** and used Selenium WebDriver for writing test scripts for**regression** test coverage.
* Used **Selenium Grid** to run test cases in multiple browsers and platforms.
* Tested the SAP jobs and executed tests both incrementally and on a system level.
* Extensively used **Oracle SQL Developer, SSMS and pgAdmin III** to validate mappings and to validate results from web client.
* Performed Graphical user interface testing, usability testing and performance testing (data validation and load/stress testing) on I2b2 Web Client and validated results using complex SQL queries.
* Executed test scripts Reusable Actions, Checkpoints, Synchronization points, parameterization and modular test in **QTP.**
* Analyzed concept mapping documents and verified mappings on all subject areas.
* Performed end to end system tests and stress, load and performance tests using data accessible through web client.
* Developed complex SQL queries using joins to test several groupings/ patient cohorts to be tested.
* Used **JIRA and Zephyr** for test management and generated reports using JIRA dashboard.
* Designed, developed and implemented change management process.
* Uploaded test strategy documents, test cases and test executions to appropriate platforms for internal and external use.
* Integrate Automation Scripts (Selenium WebDriver API) in Continuous Integration Tools (**Jenkins**) for nightly batch run of the Script.
* Created Python scripts to manually test using **Postman** and automated test scripts using  **REST API** libraries for regression testing.
* Packaged and distributed custom scripts/ toolkits for each client using version control / release management tool like GitHub.
* Created test cases in Jira and updated test results using appropriate filters and gadgets in JIRA dashboards.
* Developed test strategy document and test cases for both incremental and system tests.
* Reported bugs and generated reports using JIRA and updated the status in a timely manner.
* Performed regression testing on data areas extracted from different source systems.
* Tested various SQL and PostgreSQL stored procedures both at incremental and system level.
* Helped clients customize kettle jobs developed using Pentaho.
* Created test datasets and tested data deployed and managed with **Google Cloud platform** and accessed via web UI of **Big Query**.
* Extensively tested and troubleshooted python scripts (using NumPy and Pandas libraries for ETL) in Visual studio code.
* Tested Python scripts and created customized packages for clients as a part of deployment and change management protocols.
* Created test scripts and generated test data for various sources – NLP, OMOP, SCHILS , Genomics and NAACCR in different source formats – JSON ,XML ,CSV and fixed width flat files.
* Use Cygwin , AWS S3 and CyberDuck to transfer files securely.
* Created **Amazon Kinesis Data Stream and firehose delivery steam** to pull data from different sources including i2b2 , transformed using **Lambda** functions and store it in **S3** for an internal company wide Connectathon in 2019.
* Using command line interface tool (TNX CLI appliance ), run a Git pull to pull the latest code into test appliance.
* Using the TNXCLI tool (PowerShell/ cmdPrompt), run Unix commands and adhoc SQL to query against the intermediate tables while data is being ingested into UI .
* Tested toolkit developed for **FHIR Connectathon** held in September 2018.
* Used Synthea to create test data in FHIR format.
* Created test data for QA testing needs and followed and maintained policies and guidelines adhering to client standards.
* Designed workflows and test point diagrams using Gliffy diagrams in Confluence.

**MWSU, Wichita Falls, TX Jan 2014- May 2015**

**Graduate Assistant**

**Responsibilities:**

* Tutored and graded 30 students enrolled in a Python programming class.
* Tutored and assessed 120 students enrolled in Computer concepts and applications class.

**Academic Project -Mail forwarding process -USPS (Agile Scrum process model) Aug 2014- Dec 2014**

**QA / Project Manager**

**Environment:** C#, JIRA, Microsoft Project, Microsoft Access, Visual Studio, Visio, SQL, HP Quality center (ALM tool).

**Responsibilities:**

* Acted as a quality assurance analyst/ project manager and led a group of 5 members to automate mail forwarding process of USPS.
* Elicited requirements from client (USPS); defined scope and documented them (technical and business requirements documents).
* Developed effective test cases; performed unit , integration, system testing and UAT using HP Quality center (ALM tool) and documented them (test plan document).

**Thesis:** Emotionally intelligent tutoring system (EITS) **May 2014-May 2015**

* Proposed an EITS that could detect, classify and respond to emotional state of a learner.
* Designed an optimal response system by evaluating the response from a Facial Expression Recognition System and human tutors (through ethnographic observation).

**Publication:**

R. Mohanan, C. Stringfellow, D. Gupta, “An Emotionally Intelligent Tutoring System,” in

 Proc. of 2017 SAI Computing Conference, July 2017, London, UK, pp. 1099-1107.

**Internship**

**Renaissance Soft labs, Hyderabad, India February 2013- May 2013**

Project: Dynamic location tracking using GPS on multiple clients (Waterfall and agile process model).

**Environment:** Java, SQL, SQLite, Eclipse IDE, Android SDK,ADT plug in, XML, Tomcat Server and Oracle XE database.

**Responsibilities:**

* Led a team of 5. Designed and developed a personal safety application (android version).500 thousand downloads so far.
* Developed UML (use case , activity, sequence, class and collaboration) diagrams and database design (ER diagrams and tables).
* Designed individual screens in the application using XML.
* Developed application using Java (with JSON arrays and SQL queries).
* Performed Unit, System, Integration, Smoke, Sanity, Functional, Validation and End to End tests using Eclipse IDE and monitored the behavior of the application during different phases of testing using testing methodologies.
* Recommended improved software process model and change management process.

**Internship**

**National Institute for Macro, Small and Medium Enterprises (Ni-msme), India June 2012-January 2013**

Project: High Resolution animated scenes from still images (Waterfall model).

**Environment:** C#.Net, Visual studio, SQL server.

**Responsibilities:**

* Enhanced motion smoothness and developed easy-to-use interface to help the user to fine-tune the motion of the animated scene.
* Performed unit, integration, system and validation testing to reduce defects to 3%.

**EDUCATIONAL QUALIFICATION:**

**Midwestern State University Texas, USA**

Master of Science, Computer Science

**RELEVANT COURSEWORK:**

Advanced programming languages (C, C++, Java), Operating Systems, Advanced Software Engineering and Software Quality Assurance.

**ACADEMIC ACHIEVEMENTS:**

* Inducted to Upsilon Pi Epsilon (UPE) International Honor Society for the Computing and Information Disciplines.
* Awarded as Outstanding Graduate Student in Computer Science.
* Awarded for academic excellence by Who's Who among Students (among 2,842 institutions across USA).
* Awarded Tom C. White Graduate scholarship.
* Awarded certificate of merit for distinctive performance in National Science Olympiad held at more than 2050 centers across Asia.
* Awarded gold medal for academic excellence by Telangana state government (among students from 278 colleges).