Adhithya Narendran Sundar

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SUMMARY

QA Engineer with 5+ years of experience in automation, performance and functional testing across web, mobile and cloud-native systems. Proficient with Python/Java automation using Selenium, PyTest and Appium. Proven expertise in testing ML applications, cloud pipelines and IoT devices testing. Strong experience in CI/CD, DevOps (Jenkins, Docker, GitHub), and cloud platforms including AWS and Azure. Focused in providing scalable solid and secure solutions with the help of test-driven development and cooperation in engineering practices.

SKILLS

- **Test Automation:** Python, Java - Selenium, Appium (Mobile), Springboot.
- **API Testing:** Postman, Pytest, GraphQL API
- **Performance Testing:** JMeter, Load/Stress testing, Performance optimization and scalability testing
- **CI/CD & DevOps:** Jenkins, GitHub, Git
- **Cloud & Mobile:** BrowserStack, Android studio and xcode.
- **Test Management Tools:** JIRA, TestRail.
- **Teamwork & Leadership:** Agile/Scrum, Sprint Planning, Team Coaching
- **Team management:** Team lead, Hiring process
- **Cloud/Containers platform:** AWS services (IAM, Elb, Ec2, Ebs, SQS/SNS, S3, Cloudwatch, Cloud9, Sagemaker), Docker, Azure (IoT hub)
- **Frameworks:** pytest, DTK (amazon owned), Pegasus (amazon owned)

WORK EXPERIENCE – PROJECTS

AMAZON DEVELOPMENT CENTER, CHENNAI

Amazon Astro - Home Robot (DIGITAL ASSOCIATE & SENIOR ASSOCIATE)   **Nov 2018 - Dec 2021**

Nov 2018 – Dec 2021

- Designed and executed manual and automated test cases for the patrolling and image capture modes, validating object detection logic, motion behaviour and edge case scenarios using annotated video and image datasets

- Tested Astro's interoperability with Alexa skills, smart home devices and mobile apps ensuring stability across voice and touch-triggered routines

- Built Python-PyTest based automation for internal ML web tools improving test cycle time and model interaction coverage

- Supported the ML development team by verifying the behavior of image recognition and decision modules by developing validation scripts deployed through Amazon SageMaker to simulate inference responses under real-world input conditions

- Evaluated model confidence thresholds and fallbacks under inconsistent lighting, angles and object distances improving reliability of ML outcomes

- Performed performance and GUI testing across web portals and control apps contributing to a 14% defect reduction and enhanced user experience

- Served as the domain QA expert for the VP module and the Starscream annotation platform ensuring consistency and quality in training data workflows

- Collaborated with the DevOps team to integrate ML-inference validation and automation checks into the CI/CD pipeline enabling nightly verification of core ML functionalities

- Mentored new QA hires and testers on automation practices,ML behavior verification strategies and data-centric test design

Amazon Payment Services (SUBJECT MATTER EXPERT, QUALITY SERVICES)   **Dec 2021 - Jan 2023**

- Served as SME within secure payments and fraud detection flows such as Tabby, 3DS, STCPAY as well as various APIs of banks across the MENA region.

- Performed the end-to-end testing with the event-based payment microservices connected through AWS Lambda and API Gateway

- Created automation test scripts using PyTest to test Rest APIs by checking that tokens are generated, transactions pass through and callbacks made through webhooks and edge cases

- Applied Postman Tool to perform manual and regression API tests against the staging and the production APIs

- Using JMeter simulated increased loads of transactions and performed load/performance testing that verified scalability within Lambda concurrency and API Gateway throttles

- Performed IAM permission testing, end-to-end validation of secure access to payment endpoints and audit-compliant review of test cases

- Developed test workflows that could process message queues through the use of SQS/SNS by reaching payment retries and asynchronous activities invoked properly

- Added test automation scripts to CI/CD pipelines using Jenkins by instruction post-deploy sanity checks and performance smoke suites

- Prepared thorough JIRA bug reports, streamlined bug cycles and helped to increase the rate of defect resolution with improvements to defect triages

- Worked alongside with developers and BAs at sprint planning and performed daily triages due to the defects which form weekly QA dashboards

- Trained a team of 10 junior testers and mentored them on the cloud-native payment QA patterns, API security best practices and automation design

Amazon D2AS (SUBJECT MATTER EXPERT, QUALITY SERVICES)   **Jan 2023 - Dec 2023**

- Worked as QA lead on AI-powered chatbot system (Rufus - customer assistant) that was used in Amazon ecosystem (Alexa, Fire Tabs, Prime video, Echo)

- Architected and implemented automation suites of chatbot UI and workflows, both on emulators and on real devices, using Selenium (web) and Appium (mobile)

- Conducted REST and GraphQL APIs testing with PyTest + Requests to test validating NLP interaction flows, API triggers and response payload structures

- Performed peak load performance testing and scalability test of chat bot services using JMeter tuning parameters of backend lambda based handlers

- Real-time flows verified in the API Gateway-Lambda-SQS/SNS with asynchronous messaging queues operating with retries and exceptions notifications

- Secure API testing CI/CD seamless pipeline through CodePipeline+ Jenkins with deployment validation check and IAM role checking

- Employed AWS CloudWatch Logs and Metrics to monitor API latency, invocations failure and chatbot processing delays in real time

- Conductive and tested IAM-based access rules on exposed chatbot APIs in accordance with least privilege principles and defensive endpoints

- Worked extensively with AI/ML to verify inference responses, fallback paths and intent-resolution by language accuracy

- Guided a group of 16 engineers within a QA team and ran KT sessions on automation activities, cloud-native test plans and security-oriented regressions usage

STEALH.DESIGN, DUBAI (remote)

FIVE – Websites, Ronin, Playa-pacha (QUALITY ASSURANCE ENGINEER)   **July 2024 - Sep 2024**

- Planned and implemented QA strategies on high trafficked hotels and lifestyle sites (FIVE Hotels, Ronin, Playa Pacha) including booking engines, user authentication and mobile responsiveness
- Carried out functional and integration testing of third-party APIs (WhatsApp, Google Maps) with Postman and tested latency, timeout and failure recovery conditions
- Created strong Selenium-Python-based test automation suites in web and mobile to include standard journeys including search, booking, checkout and loyalty enrolment
- Automated mobile with Appium + PyTest on real devices/ emulators (BrowserStack, Android Studio, Xcode) Performed both the load and the performance testing with JMeter by emulating thousands of simultaneous users and detecting bottlenecks operation with a scaled cloud infrastructure
- Worked with the backend team to provide simulated IoT telemetry of smart hotel systems through Azure IoT Hub simulating real-time validation of device messages and telemetry updates in a dashboard UI
- Reliability and scalability of backend pipelines were tested and proven with Azure Event Hub, Streamlit dashboard and Live alerting systems that ensure this happens in an orderly manner even during burst loads
- Incorporated all automated test cases into CI/CD pipelines via Jenkins facilitating automated sanity check and scalability verification functionality after the deployment was made
- Worked cross-functionally with developers and user interface / user experience teams to improve real time user feedback, telemetry visualization and accuracy and dashboard responsiveness across devices

EDUCATION

Anna University, Chennai - Bachelor of Technology - IT - 6.1   Aug 2012 - May 2016

National College of Ireland, Dublin - Master of Science in Cloud Computing   Jan 2025 - Pursuing