Anup Sahoo
(ISTQB Certified Specialist)

Cloud Technical Lead with Generative AI Expertise

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JOB SKILLS

- **Authored "AI-Infused Test Automation"** – a guide on integrating AI with test automation to enhance QA efficiency and predictive capabilities.
- Explored **Generative AI** for **QA** and **DevOps** with multiple **POCs**, adding predictive insights to automation frameworks.
- Extensive experience with **Cypress**, **Selenium**, **Applitools**, **Playwright**, REST API Testing, Appium, Jenkins, Azure DevOps, and Browser Stack for building and enhancing automation workflows.
- Built and optimized frameworks (**Keyword, Data Driven, POM, BDD, and TDD**), reducing test execution time by **35%** and accelerating release cycles with Python, Type Script, and Java.
- Created a **GenAI** based dashboard for test coverage prediction using the **ELK** Stack and Cloud Watch and **sage maker**, improving early defect detection, cutting manual testing by **65%,** and reducing bug fix costs by **20%.**
- Developed **AI** driven tools for data validation, error detection, and automated test scenario creation, lowering manual effort and enhancing test accuracy.
- Led the setup of a **centralized test automation system** for teams across 19 countries, enabling easier resource and knowledge sharing.
- Built an **automated code checker**, reducing errors by **20%** and saving developers **17%** of their time on fixes.
- Designed a real-time monitoring dashboard with ELK Stack and Azure Monitor, adding **30%** more insight for improved QA tracking.
- Contributed to a **research** paper on using Large Language Models (LLMs) for automated test case generation and debugging.
- Lead the team to analyze and refine over 5,000 test scripts, reducing errors **by 35%** and improving defect detection.
- Set up metrics for **code coverage**, **defect leakage**, and functional coverage to track automation progress and boost testing effectiveness.

TECHNICAL SKILLS

Automation & Testing Tools	Selenium, Cypress, Playwright , Appium , jmeter, Applitools
Programming Languages & Libraries	Typescript, Python, Java, Groovy, REST API, JSON, HTML, React, Pytest
DevOps Tools	Jenkins, Docker, Ansible, Terraform, Groovy, Kubernetes, Azure DevOps, Nagios, ELK Stack, jfrog Artifactory, Browser stack
GenAI & Data Engineering Tools	LLMs, Hugging Face Transformers, Open AI API, PySpark, Apache Hudi in S3, Athena, Glue, EMR, Step Functions
AWS Cloud Services	Lambda, Cloud Watch, Event Bridge, SQS, SNS, Dynamo DB, Redshift, App Flow, AWS CLI, AWS DMS

EXPERIENCE

Dec 2021 – Present

Cloud Technical Lead
Insight Direct India Pvt. Ltd, Bangalore, India

- Conducted multiple **Generative AI proof-of-concepts** (**PoCs**) to enhance **QA** and **automation frameworks**, leveraging **LLMs** for **test case generation**, **debugging**, and **predictive analytics**.

- Led the development and deployment of a powerful automated testing framework using **Cypress**, **Python**, **Postman**, **REST API**, **Selenium**, and **Azure DevOps**.
- Resolved test script failures across modules, reducing post-release defects by **20%** and boosting build stability for **smoke**, **sanity**, and regression suites by **85%.**
- Built a **CI/CD** pipeline that cut the release cycle from **90** days to **30 days**.
- Expanded test automation coverage by **75%** using Applitools and **YAML**, significantly lowering **defect leakage** risks in production.
- Assisted with selective manual testing for **UAT** and **regression** during **critical releases and hotfixes**.
- Championed industry best practices for automated code reviews, reducing test script failures by 30%.
- Developed a tool for **static code analysis**, **runtime monitoring**, **test failure tracking**, and **sequential execution**, **enhancing code quality**.
- Shared automation best practices to improve **ROI** and foster a culture of continuous improvement.
- Co-authored a research paper on using **Machine Learning** and **LLMs** for generating and debugging test cases.

Achievements
- Reduced manual work by **80**% by automating test environment configuration, earning recognition from the customer and senior director.
- Cut onboarding time for new team members from **60** days to **15** days by developing a conversational **chatbot**.

Oct 2016 – Dec 2021

Senior QA Lead

Test Yantra Software Solutions Private Limited, Bangalore, India
- Designed **test plans**, **scenarios**, and **scripts** to assess product release readiness for Sony PS4 and PS5 using **Python**, **WebDriverIO**, **Jmeter**, **Jenkins**, **Ansible**, **Selenium**, **Appium**, and **REST Assured**.
- Managed and debugged test scripts, ensuring continuous monitoring and maintaining health for automation suites.
- Improved code quality and resolved regression issues, stabilizing the test suite by up to **73%.**
- Optimized release processes by orchestrating **CI/CD pipeline** sequences based on automated decision-making.
- Created proactive monitoring dashboards with K**ibana/Grafana** for component health checks, enabling **early issue detection** in QA builds.
- Ran parallel automated tests with **Selenium and Jmeter DSL** to analyze user experience, including **load** and **performance metrics**.

Achievements
- Explored commonly used metrics like **code coverage** and defect leakage to identify issues and introduced additional **metrics** for understanding and shared best practices for maximizing automation **ROI**.
- Mentored over **35+** teammates in transitioning to automation, resulting in a **30%** reduction in effort.
- Actively involved in **sharing knowledge** and expertise through blog, tutorials, and conference presentations, reflecting a commitment to continuous learning and professional development.
- Established key metrics like code coverage and defect leakage, introducing additional metrics to improve **QA insights and maximize automation ROI**.
- Mentored **35+** teammates in automation, achieving a **30%** reduction in manual effort and promoting automation best practices.
- Contributed expertise through **blogs**, **tutorials**, and **internal presentations**, reflecting dedication to learning and sharing knowledge.

April 2014 – Sep 2016

Senior Test Engineer

Test Yantra Software Solutions Private Limited, Bangalore, India
- Developed and maintained 4500+ automated test scripts using **Python**, **Selenium**, **Appium**, and **Jenkins**.

- Built release-based **pipelines** using **DevOps** tools to streamline and optimize release workflows.
- Solved instability issues by integrating a **proxy solution** to capture frontend and backend interactions.
- Integrated API tests to validate backend functionality comprehensively.

- Developed a **tool** to store historical execution data in a database, reducing decision-making time by 20+ hours.
- Created a code and **test failure monitoring bot** to address issues during critical release periods.
- Enhanced test coverage by adding attributes like priority, severity, and flow, improving detail and granularity.

Achievements
- Achieved **30%** more automation in less time by automating code reviews and test failure analysis.
- Implemented **ML** techniques to automate failed test triaging, cutting team effort and speeding up decisions.

Jan 2011 – March 2013

Technical Consultant

CSM Technologies, Bhubaneswar, India
- Collaborated with stakeholders to create **Software Requirements Specifications (SRS) and Functional Requirements Specifications (FRS)**, ensuring clear project guidelines and alignment with business needs.
- Developed comprehensive **test cases, test scenarios, and detailed test scripts** to support structured testing and high-quality deliverables.
- Conducted **manual testing** across multiple phases, focusing on functional, integration, and regression testing to identify and resolve defects early in the process.
- Executed **User Acceptance Testing (UAT)** to validate software performance and user requirements, ensuring functionality met client expectations before release.
- Performed **test case design and execution, logging and tracking defects** using tools like **JIRA** and **TestRail** to ensure transparent issue tracking and effective communication with development teams.
- Created and maintained detailed testing documentation, including **test plans**, **test summary reports**, and **traceability matrices**, to support project milestones and regulatory compliance.
- Provided critical insights to **bridge gaps** between requirements and development, enhancing documentation accuracy and project success.
- Engaged in requirements analysis to identify testable conditions, contributing to effective **test planning** and **test strategy** design.

EDUCATION
Jun 2007 – Mar 2010
- Bachelor of Computer Application , Anna University , Chennai (India)

Sep 2021 – Mar 2024
- Masters of Science (DevOps Specialization) , LJMU, UK

CERTIFICATIONS
- **ISTQB** Certified
- Certified Scum Master

LANGUAGE
- **English (Fluent)**

ORGANIZATIONAL SKILLS
- Established rapport and trust across diverse teams, facilitating communication and problem-solving.
- Led initiatives to navigate cross-cultural sensitivities and promoting cultural awareness.