SUDIPTA MOHANTY

SQA Engineer (SDET) | Test Automation · CI/CD · AI-Assisted QA | Gen AI

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SUMMARY

SQA Engineer/ SDET with 4.8 years of experience testing large-scale, database-heavy utility platforms, including RF-NMS integration testing for 30 lakh+ (3M+) smart meters across 4 production clusters in a High-Availability (HA Proxy) environment. Builds Playwright, Selenium and Pytest automation frameworks (regression time cut by 50%) and Azure DevOps and AWS CI/CD pipelines (deploy lead time cut by 60-80%). Owns the quality gate for an external automation team, with coding standards, PR review and requirement traceability. Skilled in REST API testing, Appium, Docker, and AI-assisted engineering with Claude and Cursor AI for test design and defect triage. Certified Scrum Master driving shift-left quality in Agile teams.

TECHNICAL SKILLS

- **Languages:** Python, SQL, Bash / Shell Scripting
- **Test Automation:** Playwright (Python), Selenium WebDriver, Pytest, pytest-xdist (parallel runs), Python Requests, Appium (Android), POM, Data-Driven Testing, Allure Reporting, Selenium Grid (Hub-Node)
- **Testing Types:** Manual (Functional, Exploratory, UAT), API (REST), Regression, Sanity, Smoke, Integration, System, Scale & Performance Testing
- **API Testing:** Postman, Python Requests — payload validation, auth testing, HTTP assertions, contract & data integrity testing
- **Test Design & Governance:** Equivalence Partitioning, Boundary Value Analysis, Decision Table Testing, Risk-Based Testing, Requirement Traceability, Failure Triage (RCA)
- **CI/CD & DevOps:** Azure DevOps Pipelines (YAML), GitHub Actions, AWS CodePipeline + CodeBuild, Self-Hosted Agents, IIS deployment, HA Proxy Production Environments
- **AI / GenAI QA:** Claude (Opus, Sonnet, Fable) and Cursor AI for test generation, code review, defect triage and QA reporting; multi-agent fan-out/fan-in workflows; RAG pipelines (FAISS, sentence-transformers)
- **Cloud & Infra:** AWS (EC2, S3, Route 53, CloudFront, ALB, VPC, VPC Peering, Security Groups), Azure, Docker, IIS
- **Databases & Messaging:** SQL Server, Apache Kafka (KRaft), RabbitMQ — config & integration testing on Linux VMs
- **Tools:** JIRA, Confluence, Azure DevOps Test Plans, Prometheus, Grafana, InfluxDB, Git, LambdaTest, PuTTY, MobaXterm, Gurux GXDLMSDirector
- **Methodologies:** Agile / Scrum, TDD, Shift-Left Testing, STLC / SDLC, HLD / LLD Documentation

PROFESSIONAL EXPERIENCE

Lead SQA Engineer (SDET), Iskraemeco India Private Limited Jul 2023 – Present | Kolkata, IN

Products: Anantya HES/MDM (web), Synkra (Android), SYMBIOT utility suite | Client: Govt. Utilities

- Delivered full-spectrum testing across 3 product lines — manual functional and exploratory, REST API (Postman + Python Requests) and UI automation — covering regression, sanity, smoke, integration and UAT every sprint.
- Cut regression execution time by 50% (500+ test cases) by building a Python, Pytest and Selenium WebDriver framework with POM, DDT, Selenium Grid (Hub-Node) parallel cross-browser execution and Allure reporting across Chrome, Firefox and Edge.
- Reduced sprint defect-escape rate by 40% by orchestrating AI-driven, fan-out/fan-in multi-agent QA workflows using Claude, with Cursor AI-assisted script development — automating test case generation, defect triaging and QA reporting across 3 product lines.
- Improved deployment efficiency by 60–80% across 10+ .NET microservices and React/Android apps by designing Azure DevOps YAML CI/CD pipelines with self-hosted agents, artifact publishing, S3 uploads and IIS rollout.
- Architected AWS CI/CD pipelines (CodePipeline + CodeBuild) and managed EC2, S3, Route 53, CloudFront, ALB, VPC peering and security groups, enabling zero-downtime, scalable deployments.
- Own the automation quality gate for an external automation team, defining coding standards, PR conventions, test strategy and a review checklist so outside contributions meet the same bar as in-house code.
- Validated Apache Kafka (KRaft) and RabbitMQ on Linux VMs; authored HLD/LLD documentation for the full pipeline lifecycle, adopted by the 4-engineer team.

Senior Analyst – SDET & Test Automation, Capgemini Sep 2021 – Jul 2023 | Bengaluru, IN

- Executed 200+ REST API tests (Postman + Python Requests) across 5+ backend services — auth, payload, HTTP assertion and cross-environment data integrity — cutting P1/P2 defect count by 35% sprint-over-sprint.
- Prevented UAT bug leakage across 8 sprint releases by leading regression and sanity testing phases, applying equivalence partitioning and boundary value analysis for maximum defect detection.
- Reduced defect resolution time by 25% through full JIRA/Confluence bug lifecycle ownership; contributed to 8 consecutive on-time sprint deliveries through active Agile ceremony participation.

KEY PROJECTS

Agentic QA Framework · Anantya HES Web-Client UI Automation (Playwright + Pytest) Dec 2025 – Present

- Built a Playwright (Python) and Pytest framework with Page Object Model, auto-waiting (no hard sleeps) and cross-browser runs on Chrome, Edge, Firefox and WebKit, giving the team repeatable regression coverage without manual re-testing each release.
- Solved the server-side sign-in CAPTCHA with session capture and replay: one authenticated session is saved and replayed into isolated test contexts, and expired sessions are skipped with a clear message instead of failing, so runs produce no false auth failures.
- Automated failure triage that classifies every failure as product defect, UI change, environment, data or test issue, with screenshots, traces and video attached, so the defect register holds only real findings and triage time drops.
- Added requirement traceability (tests tagged to the requirement tracker, with coverage reports) so QA and management can see what is and isn't covered.
- Delivered Allure and HTML reports with trends, plus an automatic defect log with embedded screenshots, giving stakeholders a clear view of release quality every run.
- Built a local RAG pipeline (FAISS, sentence-transformers, Claude for cited answers) over the product's own documentation so the team can look up specs and OBIS codes from source documents.

RF Meters Communication & Integration Testing · Anantya HES/NMS (Wirepas RF Mesh) Jul 2023 – Present

- Protected the rollout of a smart metering network of 30 lakh+ (3M+) meters across 4 production clusters by validating HES/NMS integration, failover and data sync in an HA Proxy environment, so go-lives did not disrupt billing data for government utility clients.
- Reduced late-stage defect risk by writing 124+ test cases against the FRD and analyzing the RF mesh SRS (~71 use cases) up front, giving the team a clear test scope and effort estimate before development finished.
- Validated the RF provisioning pipeline end to end (CSV templates, system-title encoding, push-rule XML, registration flows) and traced 160 failed device registrations to two root causes, so fixes targeted the real problem.
- Verified DLMS/COSEM communication with Gurux GXDLMSDirector and checked scalar mapping and consumption data against SQL Server (AnantyaDB).
- Ran scale and load tests on the database-heavy platform, confirming query performance, data integrity and stability at high transaction volumes before production exposure.
- Gave on-site L1/L2 production support in Ahmedabad (2 months) and Kerala (4 months), using Prometheus and Grafana, log analysis and RCA to hand L3 clear evidence and keep service running.

Multi-Agent AI QA Pipeline · Anantya HES/MDM Automation Framework Jul 2023 – Present

- Reduced manual QA overhead by 40% per sprint by architecting a Claude-based fan-out/fan-in multi-agent pipeline, with Cursor AI-assisted script development, for test generation, defect triaging and QA reporting, integrated into Azure DevOps alongside a Selenium + Pytest + POM framework (50% faster regression, 3 browsers).

Multi-Service CI/CD Platform · Synkra Android Mobile Suite Jul 2023 – Present

- Cut deploy lead time by 60% for 10+ .NET microservices and improved mobile deployment efficiency by 80% by designing Azure DevOps YAML pipelines with Appium Android automation, parallel builds, self-hosted agents and S3 artifact publishing, with full HLD/LLD documentation.

EDUCATION

Master of Computer Applications (MCA), SRM University KTR 2020 – 2022 | CGPA: 8.9 / 10

Bachelor of Computer Applications (BCA), Techno India Main 2017 – 2020

CERTIFICATIONS & RECOGNITION

- Certified Scrum Master — Scrum Alliance
- Docker Foundations Professional Certificate
- LambdaTest Certified Selenium Professional
- Capgemini QE&T Certified Engineer (L1 & L2)
- Sogeti Q1 Rockstar Award · Top H1 Contributor – QA Process Optimisation