

SHIVA NARAYAN DEY

AUTOMATION TESTER (PYTHON & JAVA) | BDD FRAMEWORK SPECIALIST | CLOUD & API AUTOMATION | AWS CERTIFIED | MCA CANDIDATE

☎ (+91) 8555914966 | ✉ dey.sn@outlook.com

🔗 [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

SUMMARY

Automation Tester & SDET with 4+ years of progressive experience in designing and implementing API automation frameworks, backend job validation, cloud-based test automation, and AI-powered test tools. Expert in BDD frameworks (Behave, Cucumber, Gherkin), Pytest, Selenium, and Allure reporting, driving automation-first test strategies across multiple industries including aviation, healthcare, utilities, and HR. Strong in API contract testing, cloud integration validations (AWS), and developing end-to-end automation pipelines integrated with JIRA workflows. Additionally skilled in Python-based web development (Flask/Django) for building internal tools and automation dashboards.

WORK EXPERIENCE

COGNIZANT TECHNOLOGY SOLUTIONS

Programmer Analyst | Nov 2020 – Present (4 years 6 months) | Hyderabad

KEY AUTOMATION PROJECTS

CENTRICA (ENERGY & UTILITIES)

- Transitioned from **Java-Selenium automation** to a testing-centric role, focusing on both functional and integration testing.
- Developed and executed automated test cases for customer portal features, utilizing **Java Cucumber** and **Avanstac** for behavior-driven development (BDD).
- Led **API testing** and validation efforts using **JUnit** to ensure backend and front-end systems communicated smoothly.
- Conducted regression testing to validate energy data management features and sales manager profile functionality.
- Implemented **performance testing** to ensure scalability under high traffic, including load and stress testing.
- Created and managed **test reports** to provide clear insights into system performance and test outcomes.
- **Technologies:** Java (Cucumber, Avanstac, JUnit), Selenium, Test Reporting Tools.

MELBOURNE AIRPORT (CRM TOOL)

- Developed and executed comprehensive **end-to-end test strategies** for ticket management systems and workflows.
- Automated functional and **API testing** using **Java-Selenium** and **Java Cucumber**, ensuring robust integration with schema-less NoSQL databases.

- Led testing for customer query management workflows, including forms and bots for efficient support system interactions.
- Validated ticket queuing and **SLA tracking** systems to ensure proper priority handling and timely issue resolution.
- Integrated advanced **test reporting frameworks** to provide real-time insights into system performance and test results.
- Conducted **User Acceptance Testing (UAT)** to ensure CRM system features met business requirements.
- Validated priority-based ticket queuing logic using **JUnit** to guarantee accurate ticket escalation handling.
- **Technologies:** Java (Cucumber, Avastac, JUnit), Selenium, NoSQL, AWS ECS, Test Reporting Tools.

3. INTERNATIONAL AIRLINES GROUP (IAG) PEGASUS

- Automated UI workflows with Selenium (Java) and API testing via Pytest.
- Developed and validated Flask-based microservices and APIs.
- Created test automation dashboards and executed backend job validations via AWS SSH.
- Tools/Skills: Selenium (Java), Pytest, Flask, AWS RDS, DynamoDB.

4. IAG DC-EXIT (AWS MIGRATION)

- Migrated legacy British Airways applications (e.g., DSIP, DSEU, Pegasus, AirOps) to AWS cloud infrastructure.
- Loosely coupled systems for scalability, leveraging Docker and ECS for containerized deployments.
- Worked on AWS Elastic Beanstalk and CloudFormation for infrastructure automation and deployment.
- Technologies: Python (Flask, Django), AWS ECS, Elastic Beanstalk, Docker, SQL, CloudFormation, AWS RDS.


5. SMARTCASE – AI-POWERED TEST CASE GENERATOR (NOW REVENUE-GENERATING)

GitHub: [SmartCase](#)

- Designed and built an AI-based automated test case generation tool integrating **OpenAI API** with **Java Cucumber**, **JUnit**, and **Python Selenium** frameworks.
- Automated code export for test cases into **Java and Python automation frameworks**, reducing manual effort by 70%.
- Integrated **Allure reporting** (Python) and **JUnit/Avastac reports** (Java) for automated execution reports.
- Managed API testing and deployment in **AWS ECS** and **Lambda environments**.
- Created data visualization dashboards using **Seaborn** and **Matplotlib** for test data analytics and resource management insights.

6. RTO STATUS – OFFICE ATTENDANCE TRACKER (PYTHON FLASK WEB APP)

- Developed a Python Flask web application for tracking Return to Office (RTO) status submissions from employees.
- Integrated SQLite database for storing daily attendance records.

- Designed an intuitive web interface using HTML, CSS, and Bootstrap for associates to log attendance.
 - Enabled data export and visualization features using Pandas and Matplotlib for management reporting.
 - Tools/Skills: Python (Flask), SQLite, Pandas, Matplotlib, HTML, CSS, Bootstrap
-  [GitHub Repository](#)

7. REFZ (REFERENCING PORTAL)

- Test Lead: Managed automation and testing responsibilities.
- Developed and maintained a BDD API automation framework using Python Behave (Cucumber).
- Automated token-based authentication, mock response handling, and negative scenarios across AWS environments (DEV, UAT, PROD).
- Delivered clear test reports via Allure & HTML Reports, fully traceable through JIRA acceptance criteria.
- Collaborated with developers, raised bugs in JIRA, and provided test exit reports and test plans.

8. BAHS (BRITISH AIRWAYS HEALTH SERVICES)

- Test Lead: Oversaw all testing processes for the project.
- Automated health services API modules covering positive, negative, and config-based scenarios.
- Designed dynamic Entra token generation and AWS Lambda-driven tests.
- Developed Allure and HTML reporting dashboards for JIRA stakeholders.
- Participated in client meetings, ensuring software quality and providing test approvals.

9. PEOPLE API (EMPLOYEE DATA MANAGEMENT)

- Test Lead: Led the testing strategy for this project, including API security and cyber assurance.
- Created a scalable API automation framework in Python Behave with Gherkin.
- Automated API scenarios including token validations, data integrity, negative case validation.
- Participated in cyber assurance of APIs and validated APIs against Swagger contracts.
- Integrated test results with JIRA workflows and ensured AWS Cognito, AppConfig validations.
- Managed Jenkins server for automation in PeopleAPI project and worked with Swagger for API contract validation.

CORE AUTOMATION RESPONSIBILITIES

- Architected and maintained BDD and API automation frameworks using Behave, Pytest, Selenium, and Cucumber.
- Automated end-to-end and regression testing suites for cloud-hosted APIs and backend services.
- Developed dynamic Entra token generation and config validations across AWS environments.
- Integrated Allure/HTML reporting and ensured traceability to JIRA acceptance criteria.
- Performed selective manual validations for Swagger, S3, AppConfig, and AWS Glue jobs.
- Automated cloud workflows using AWS Lambda and CloudFormation.
- Regular contributor to GitHub version control processes — creating branches, making PRs, committing, merging, and deploying code.
- Participated in sprint planning, DevOps integrations, and CI/CD pipeline management.

TECHNICAL SKILLS

AUTOMATION TESTING:

- Python (Behave, Pytest), Selenium (Python & Java), Cucumber, Gherkin, Postman
- REST & GraphQL API Automation (Requests, Postman, Entra Token, Session Handling)
- Jenkins Pipeline Automation, CI/CD Pipeline Management, Jenkins Server Setup
- Allure, HTML Reports, Entra Token Automation
- Backend Job Automation (AWS SSH, Linux Shell, Cron Jobs)

CLOUD & DEVOPS:

- AWS (ECS, Lambda, RDS, CloudFormation, Docker, AppConfig, Cognito, Glue, S3, CloudWatch Logs), boto3

WEB DEVELOPMENT (SUPPORTIVE SKILLS):

- Python (Flask, Django), HTML, CSS, JavaScript (React, Node.js), SQLAlchemy

AI & ML TOOLS:

- OpenAI API, scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, AWS Bedrock (boto3)

DATABASES:

- PostgreSQL, MySQL, AWS DynamoDB
- Automating SQL query validations, DB migration checks, and integration into CI pipelines

EDUCATION

SRM UNIVERSITY (MASTERS) MARCH 2023 – MARCH 2025

- Graduated with an outstanding with 9.8 SGPA.

Notable Academic Projects at SRM University

1. **Vagabond Vision** (Flutter Mobile Application)
 - AI-driven travel recommendation app.
 - Repository: [Vagabond Vision](#).
2. **SmartCase** (Python Flask Web Application)
 - A test case generator application using PostgreSQL for database management.
 - Repository: [SmartCase](#).

BHAVAN'S VIVEKANANDA COLLEGE (GRADUATION) JUNE 2017 – NOVEMBER 2020

- Graduated with an outstanding 9.51 GPA.
- Awarded 1st Prize in Android Application Development.
- Secured 1st Prize in Poster Presentation at the *From Big Bang to Black Holes* Event.
- Participated in a one-day Outreach Program at the *National Balloon Facility* (TIFR).
- Completed coursework in Android App Development.
- Honored with the title *Mr. Technoment* by the Computer Science department.

BHAVAN'S SRI AUROBINDO JUNIOR COLLEGE (INTERMEDIATE)
JULY 2015 – APRIL 2017

- Specialized in Mathematics, Physics, and Chemistry.
- Excelled with a 93% score in Intermediate.

ST. ANN'S HIGH SCHOOL (SSC BOARD/10TH CLASS)
JUNE 2002 – APRIL 2015

- Attained a remarkable 8.3 GPA in SSC 10th.

LANGUAGES

- English (Full Professional)
- Hindi (Native or Bilingual)
- French (Elementary)
- Telugu (Limited Working)

CERTIFICATIONS & AWARDS (REFINED)

CERTIFICATIONS:

- AWS Certified Cloud Practitioner (Credential ID: 9ddc675bcebd470fb458b0207b112c75).
- Udemy: Python 100 Days, 100 Projects Challenge ([GitHub Projects](#)).

HONORS & AWARDS:

- **Mr. Technoment:** Recognized for mentoring juniors in Android and web development.
- 1st Prize, Android App Development (Bhavan's Vivekananda College).