Alin Nitu

Senior QA Automation Engineer | SDET | AI-Assisted Quality Engineering

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Professional Summary

Senior QA Automation Engineer with **9+ years of experience** designing test automation frameworks, defining quality strategies, and testing complex enterprise, fintech, and aviation systems.

Specialized in Python, TypeScript, Playwright, API and integration testing, distributed systems, and CI/CD automation. Proven track record of building automation solutions from scratch, accelerating regression testing, reducing production defects, and enabling faster, more reliable releases.

Experienced in **AI-assisted and agentic QA workflows**, using coding agents, Playwright MCP, and integrated development tools to accelerate test development, debugging, root-cause analysis, and quality engineering processes.

Technical Skills

Programming:	Python, TypeScript, JavaScript, Java, SQL
Test Automation:	Playwright, Pytest, pytest-bdd, Selenium, WebdriverIO, Cypress, TestNG, Cucumber/Gherkin, Behave
API & Integration Testing:	REST, SOAP/XML, GraphQL, AMQP 1.0, Apache Qpid Proton, Postman, SQLAlchemy
Performance Testing:	Locust, load testing, stress testing, performance validation
CI/CD & Infrastructure:	GitHub Actions, Azure DevOps, Jenkins, Docker, Kubernetes/OKD, Git, AWS
Databases:	PostgreSQL, MySQL
AI-Assisted QA:	AI coding agents, Playwright MCP, agent-assisted test generation, debugging, failure analysis, automated reporting, human-in-the-loop review
Test Management & Reporting:	Jira, Xray, TestRail, Allure, JUnit, QA Touch
Engineering Practices:	Test automation architecture, Page Object Model, BDD, end-to-end testing, integration testing, test strategy, quality gates, test data management, code reviews

Professional Experience

Senior QA Automation Engineer

PwC

August 2025 – Present
Remote

- Designed and developed a TypeScript/Playwright automation framework for a large enterprise platform, covering end-to-end workflows, GraphQL APIs, integration scenarios, health checks, and selected performance validations.
- **Enabled a weekly release cadence**, compared with the monthly cadence of other teams in the department, by embedding automation and quality assurance processes directly into the team's development and delivery workflow.
- Designed a scalable automation architecture using Page Object Models, reusable service/helper layers, multi-environment configurations, automated test-data management, and unattended enterprise authentication.
- Integrated automated testing into GitHub Actions and Azure DevOps pipelines, including staged execution, parallel test runs, consolidated reporting, and failure diagnostics.
- Introduced AI-assisted QA workflows using coding agents, Playwright MCP, and Azure DevOps integrations to accelerate test authoring, debugging, root-cause analysis, and reporting while retaining human oversight.

TECHNOLOGIES: TypeScript, Playwright, GraphQL, GitHub Actions, Azure DevOps, Playwright MCP, AI coding agents, CI/CD

Senior Test Automation Engineer

Indra Avitech

June 2023 – July 2025
Remote

PROJECT 01

EUROCONTROL iNM — *Flight Planning Platform*

- Led the test automation strategy for a European aviation flight-planning platform, **designing and building functional automation frameworks from scratch** for UI, REST API, and SOAP service testing.
- Developed a separate Python/Locust performance testing framework to evaluate system behavior under load and stress conditions.
- Automated complex flight-plan submission, processing, and distribution scenarios that were impractical to validate comprehensively through manual testing alone.
- Established reusable automation practices, test management processes, and requirements traceability, collaborating with QA, Development, DevOps, and Product teams.

PROJECT 02

FF-ICE — *Distributed Aviation Integration System*

- Owned the automation strategy and led development of a Python BDD integration testing framework from scratch for a distributed, message-driven aviation system.
- **Enabled end-to-end verification of complex multi-service workflows**, validating asynchronous AMQP messaging, business rules, transformed messages, and PostgreSQL persistence.
- Developed reusable messaging clients, fixtures, database verification components, environment-specific configuration, and automated cleanup mechanisms.
- Integrated the framework with Jenkins CI/CD, Kubernetes/OKD environments, and Allure reporting to support repeatable integration testing and efficient failure investigation.

TECHNOLOGIES: Python, Playwright, Pytest, pytest-bdd, Gherkin, REST, SOAP/XML, Postman, Locust, AMQP 1.0, PostgreSQL, SQLAlchemy, Jenkins, Docker, Kubernetes/OKD, Allure, Xray, Jira

Software Development Engineer in Test / Full-Stack Developer

Moonfare

September 2021 – April 2023
Berlin, Germany

- Contributed to the engineering team responsible for **building the company's public API from scratch**, working across backend development, integration testing, and automated quality assurance.
- Designed and developed test automation frameworks covering REST APIs, user interfaces, integration scenarios, and performance testing.
- Introduced automation approaches and quality engineering practices that were subsequently **adopted by other internal teams**, extending their impact beyond the original project.
- Built comprehensive integration and regression coverage that identified cross-system defects and implementation issues missed by the testing performed within other feature teams.
- Contributed to backend and internal tool development while supporting code reviews, mentoring teammates, and promoting maintainable engineering practices.

TECHNOLOGIES: Python, TypeScript, Node.js, Express.js, NestJS, React, Pytest, Behave, Selenium, WebdriverIO, Mocha, Jest, MySQL, AWS, Jenkins, Postman, Locust

QA Automation Engineer

Billie

October 2018 – August 2021
Berlin, Germany

- Designed and built an automated testing framework for the company's ordering workflows, replacing a regression testing process that had previously relied on manual execution.
- **Reduced regression testing time by approximately 50%**, improving feedback speed and supporting more efficient delivery cycles.
- Significantly reduced production defect escapes by introducing earlier automated detection of ordering-flow regressions and business-rule failures.
- Expanded API and UI automation coverage and helped establish more structured testing and quality assurance processes within the team.

TECHNOLOGIES: Java, Selenium, TestNG, Retrofit, Cucumber, REST APIs, Postman, MySQL, RabbitMQ, Jenkins

QA Engineer

Ubisoft

September 2017 – September 2018
Bucharest, Romania

- Performed functional, exploratory, UI, and API testing for internal desktop applications and supporting services.
- Created and maintained test cases, documented defects, and developed automated checks using Ranorex.

TECHNOLOGIES: Ranorex, Postman, Jira, TestRail

Selected Independent Projects

Maponim — *AI-Powered Website Creation*

https://maponim.com/

Independently developed and launched a web application that uses AI-assisted workflows to help local businesses generate websites from existing business information and customer reviews.

Next Job Radar — *Intelligent Job Discovery*

Available through portfolio

Developed an AI-assisted job discovery application focused on matching software professionals with relevant opportunities, including geographic and eligibility constraints.

Education

Master's Degree — University of Bucharest

Languages

Romanian (Native) | **English** (Professional) | **Spanish** (Basic)