

## Quality Engineering Architect | Mobile - API - AI Systems - Distributed Platforms

Quality Engineering Architect with 15+ years of experience in automation and distributed systems reliability. Specialized in designing validation frameworks for IoT ecosystems, multiple platforms (Mobile/Desktop/Web), and LLM pipelines, with a focus on reducing delivery time and mitigating regression risk in high-scale environments.

## Work Experience

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### Senior QA Engineer | Confidential Company | May 2026 - Present • Confidential

- Develop a scalable AI-first solution that transforms test automation artifacts into a structured, queryable knowledge base using Python, MongoDB, TypeScript/Node.js, Git/GitHub, and graph-style modeling.
- Model entities and relationships across suites, test cases, tasks, objects, scenarios, request bodies, validation sets, connections, and datasets to create a consultable technical knowledge layer.
- Structure context for LLMs/agents to support supervised test execution, modification, maintenance, and test case creation while preserving traceability and dependencies.
- Build ingestion, normalization, and incremental indexing pipelines for automation artifacts, preserving metadata, dependencies, and change history.
- Adapt Electron/Node.js, NodeGit, and ASAR-based desktop workflows for restricted corporate environments while protecting credentials in remotes, logs, and command execution.

### QA Automation Specialist - API & Mobile | Arlo | 2025 - 2026 • Carlsbad, CA / US

- Architected a cross-platform automation framework for IoT ecosystems, supporting validation across mobile applications, backend APIs, and firmware interactions for thousands of connected devices.
- Designed a multi-layer validation strategy combining mobile UI automation, API verification, and device telemetry analysis, reducing regression risk across hardware and software layers.
- Built automation coverage for critical device lifecycle flows (pairing, provisioning, firmware updates, streaming), improving release confidence across mobile and firmware releases.
- Developed automated validation pipelines for device-cloud communication and IoT event flows, enabling reliable validation of distributed system interactions.
- Introduced shift-left validation strategies across mobile, backend, and firmware teams, increasing early defect detection and reducing production incidents.

### Senior SDET | RowbotAI | 2023 - 2024 (Part Time) • San Diego, CA / US

- Engineered LLM evaluation frameworks improving response reliability and reducing hallucination rates through semantic similarity scoring and automated validation pipelines.
- Designed data ingestion and vectorization pipelines supporting conversational AI systems using Python and vector databases.
- Built backend architectures for voice-based systems integrating speech interfaces with AI services and production workflows.
- Implemented validation strategies for conversational pipelines, ensuring consistency and reliability across AI-driven interactions.
- Optimized AWS infrastructure for AI workloads, improving system reliability and reducing response latency.

### QA Manager | Adentis (Outsourcing) | 2020 - 2022 (Multiple Clients) • Porto, PT

- Established QA strategy across 5+ global client environments, reducing release cycle time by 20% and increasing deployment frequency by 35% through standardized CI/CD governance.
- Designed automation frameworks for backend services and APIs, improving test coverage and consistency across distributed systems.
- Built QA strategies based on production incident analysis, reducing recurring failures and improving system stability.
- Integrated automated validation pipelines into CI/CD workflows, increasing release traceability and quality visibility.
- Collaborated with engineering and product teams to improve delivery speed while maintaining system reliability.

### **DevOps Engineer / SRE | Ipiranga / Santander | 2019 - 2021 • Brazil**

- Architected a cloud-native testing platform on AWS, enabling large-scale automated regression execution across distributed systems and microservices.
- Designed containerized test infrastructure using Docker and ECS/Fargate, supporting scalable automation workloads across multiple environments.
- Implemented IaC with Terraform, reducing environment provisioning time by 80% (from days to minutes), enabling 24/7 availability for critical financial microservices.
- Built observability pipelines using CloudWatch, Grafana, and Prometheus, enabling real-time monitoring of system performance and quality metrics.
- Supported production systems and incident response, contributing to reliability improvements across high-availability platforms.

### **QA Architect | Multiple Clients | 2009 - 2019 • Brazil**

- Designed automation solutions for enterprise platforms across finance, media, and e-commerce domains.
- Built validation systems for voice platforms (IVR/VoIP), enabling repeatable testing of telephony workflows.
- Developed automation strategies for legacy systems lacking stable identifiers or test interfaces.

## **Technologies and Languages**

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- Languages: Python, TypeScript/JavaScript, Java, SQL
- Automation & Quality: API, Mobile, Web Testing, Distributed Systems Validation
- AI Systems: LLM Evaluation, RAG Pipelines, AI-first Artifact Modeling, Dependency Graphs, Semantic Testing
- Cloud & Infrastructure: AWS, Docker, Kubernetes, Terraform, CI/CD Pipelines
- Observability: Grafana, Prometheus, CloudWatch
- Systems: IoT Validation, API & Integration Testing, Reliability Engineering

## **Education and Certifications**

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- B.Sc. Machine Learning, PUC-GO/Brazil. 2024 - 2026