

ELYER GREGORIO MALDONADO

SENIOR QA TECH LEAD | TEST AUTOMATION ARCHITECT

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7+

YEARS EXP.

55-60%

DEFECT REDUCTION

92%

AUTO. COVERAGE

9

TOOLS BUILT

PROFESSIONAL SUMMARY

Senior QA Tech Lead and Test Automation Architect with 7+ years leading Quality Assurance teams and designing end-to-end quality ecosystems. Specialized in **Shift-Left Testing**, **AI/LLM Testing**, **Performance Testing**, and **Security Testing**.

Creator of the **QASL Ecosystem**: a suite of 9 integrated tools including QASL Framework (E2E, API, Performance, Security), SIGMA Analyzer (AI-powered test case generation), INGRID (AI/LLM Testing), SIPQ-SENTINEL (environment monitoring), QASL-API-SENTINEL (24/7 API monitoring), QASL-SENTINEL-UNIFIED (AI-powered Command Center for deployment change detection), QASL-MOBILE (mobile testing with AI), and QASL-Manual (QA Manual team platform).

Methodologies aligned with **ISTQB v4.0**, **IEEE 829/830**, and **ISO/IEC 25010**. Proven track record reducing critical defects, optimizing testing cycles, and building enterprise-level reusable frameworks.

Key Achievements:

- **1,300+ test cases** generated from User Stories before development
- **35% reduction** in defect detection time (Shift-Left approach)
- **55-60% reduction** in critical production defects
- **92% automated coverage** for regression, smoke, and sanity
- **42% increase** in testing efficiency

CORE COMPETENCIES

E2E Test Automation

Playwright, TypeScript, Python, Pytest, Page Object Model, 11-level selector system, BDD/Cucumber

AI / LLM Testing

Claude API, Garak (NVIDIA NeMo), LLM-as-Judge, Prompt Engineering, RAG, ML Anomaly Detection, relevance/accuracy/coherence/hallucination evaluation

API Testing

Postman, Newman, REST, SOAP, GraphQL, Contract Testing, OAuth/JWT, Swagger/OpenAPI, schema validation

Programming

TypeScript, JavaScript (Node.js), Python, PowerShell, Bash, SQL (PostgreSQL, SQL Server)

QA Management

Performance & Observability

K6, JMeter, Grafana, InfluxDB, Prometheus, PromQL, Pushgateway, Loki, real-time metrics, executive dashboards

Security Testing

OWASP ZAP, Garak (LLM Vulnerability Scanner), OWASP LLM Top 10 2025, Prompt Injection Testing, Jailbreak Detection, PII Exposure Testing, penetration testing, security hardening

Mobile Testing

Maestro, Android Emulators, Claude Vision for UX/UI analysis, Device Streaming via WebSocket

CI/CD & DevOps

Docker, Docker Compose, Git/GitHub, GitLab CI, GitHub Actions, Jenkins, pipeline automation

Monitoring & Alerts

JIRA, Xray, TestRail, Confluence, Swagger/OpenAPI, Allure Reports, Risk-Based Testing, Technical Writing

Prometheus, Grafana, InfluxDB, Pushgateway, 24/7 Health Checks, ML for anomalies, DEFCON system, automated email reports

Standards & Methodology

ISTQB v4.0 Foundation, IEEE 829/830, ISO/IEC 25010, Agile/Scrum, Shift-Left Testing, TDD, BDD, DevOps Practices

Compliance & Reporting

SOC2, ISO 27001, PCI-DSS, HIPAA, OWASP Top 10, GDPR, PDFKit, Slack/Teams Integration

PROFESSIONAL EXPERIENCE

QA Tech Lead – EPIDATA

Mar 2025 – Present · Buenos Aires (Hybrid)

Government Sector (AGIP, SIPQ, ASI, OCA)

Technical QA lead for multiple government projects, defining standards, automation architectures, and Shift-Left Testing strategies.

- Designed and built the **QASL Ecosystem** with 9 integrated tools: QASL Framework, SIGMA Analyzer, INGRID, SIPQ-SENTINEL, QASL-API-SENTINEL, QASL-SENTINEL-UNIFIED, QASL-MOBILE, QASL-Manual, and QASL-Monitor.
- Developed **SIGMA Analyzer** for static User Story analysis with Claude API, generating **1,300+ test cases** before development.
- Defined **6-phase Shift-Left methodology** aligned with ISTQB v4.0 and IEEE 829/830, applicable from requirement analysis to production.
- Implemented recording system with **11 selector levels** for robust and maintainable automation in dynamic environments.
- Achieved **35% reduction** in defect detection time by advancing key testing to early SDLC phases.
- Created **executive dashboards** in Grafana with real-time metrics for technical and business stakeholders.
- Mentored and coached 5+ junior/mid-level QA professionals in automation, test design, and AI Testing.

Tech Stack: Playwright, TypeScript, Python, K6, OWASP ZAP, Newman, Docker, Grafana, InfluxDB, Loki, Prometheus, Claude API, Garak, PDFKit, JIRA, Xray, SQL Server

QA Automation Engineer – UPEX

Aug 2020 – Dec 2024 · Buenos Aires (Remote)

E-commerce · Fintech · Healthtech

Automation engineer for multi-sector solutions focused on reliability, coverage, and delivery speed.

- Reduced regression execution time by **30%** through strategic automation with Playwright/TypeScript.
- Increased automated test coverage by **40%** (regression, smoke, sanity).
- Reduced critical production defects by **55%**.
- Designed and implemented reusable **Page Object Model** frameworks prioritizing maintainability.
- Configured load and stress tests with **JMeter and K6** to validate performance and scalability.
- Integrated tests into **CI/CD pipelines** with GitHub Actions, reducing feedback time.
- Implemented basic security testing with **OWASP ZAP** on critical flows (authentication, payments).

Sectors: E-commerce, Fintech (ISO 8583, PCI-DSS), Healthtech (HIPAA)

Project Manager / QA Lead – STOP MEDICAL ESTENDELY, C.A.

Apr 2013 – May 2020 · Caracas (On-site)

Healthcare Sector

Led digital transformation projects in healthcare, implementing HIS (Hospital Information System) across medical facilities.

- Successfully implemented HIS in **5 medical centers** with zero critical production incidents.
- Reduced data migration errors by **65%** through structured validations and cross-system testing.
- Coordinated multidisciplinary teams of up to **8 professionals** (development, QA, infrastructure, support).
- Ensured **HIPAA** compliance and best practices for sensitive information handling.
- Managed migration testing between legacy systems and modern HIS.

QASL ECOSYSTEM – 9 INTEGRATED TOOLS

QASL Framework – Quality Assurance Shift-Left **CORE**

Enterprise unified QA automation and observability platform designed to implement Shift-Left Testing at organizational scale.

- Integration of E2E (Playwright), API (Newman), Performance (K6), and Security (OWASP ZAP)
- End-to-end observability with Grafana, InfluxDB, and Loki for centralized metrics
- Complete traceability: **Epic → US → Test Suite → Test Case**
- Automated pipelines with Allure reports and executive dashboards

Stack: Playwright, Newman, K6, OWASP ZAP, Grafana, InfluxDB, Loki, Docker, TypeScript

SIGMA Analyzer **AI**

Static User Story analysis engine with Claude API for automated test case generation.

- Complete US document analysis with Business Rules identification
- Generation of 2 scenarios per BR (Positive + Negative)
- CSV output compatible with QASL-Manual
- Over **1,300 test cases** generated before development

Stack: Python, Claude API, CSV Processing

INGRID – AI Testing Framework **SECURITY**

Professional framework for automated testing of chatbots and LLM systems using LLM-as-Judge methodology.

- Based on **OWASP LLM Top 10 2025** for AI system security
- Vulnerability detection: prompt injection, data leakage, jailbreaks
- Multi-dimensional evaluation: relevance, accuracy, coherence, completeness, hallucination score
- Integration with Grafana and Prometheus for real-time metrics

Stack: Playwright, TypeScript, Claude API, Grafana, Prometheus, Docker

SIPQ-SENTINEL – Environment Monitor **MONITOR**

Autonomous environment monitoring system with predictive AI to detect issues before running regressions.

- Automated validation of Login, Menus, Navigation, and critical functionalities
- Automatic screenshots with Claude AI analysis
- Predictive reports: environment READY or NOT READY for testing
- Slack/Email integration for real-time alerts

Stack: Playwright, TypeScript, Claude API, Node.js

QASL-API-SENTINEL – API Monitor 24/7 **MONITOR**

Intelligent API monitoring center with continuous health checks, Machine Learning for anomalies, and compliance reporting.

- 24/7 monitoring with Prometheus metrics and Grafana dashboards
- Machine Learning for anomaly detection and failure prediction
- Automated email reports (every 5 hours, daily, weekly)
- Security scanning and compliance reports (SOC2, ISO27001)
- Complete CLI with NASA-style terminal dashboard

Stack: Node.js, Prometheus, Grafana, Docker, Claude API, Machine Learning

QASL-SENTINEL-UNIFIED – Command Center **AI + MONITOR**

Unified monitoring Command Center for Test and Staging environments. Detects changes in Frontend (DOM) and Backend (API) deployments with integrated artificial intelligence.

- Dual monitoring: **Backend APIs** (Prometheus) + **Frontend DOM** (Playwright + InfluxDB)
- **INGRID** chatbot with Claude AI integrated in Grafana for natural language queries
- Professional **PDF report generation** and on-demand automated email delivery
- LLM red-teaming with **Garak (NVIDIA NeMo)**: prompt injection, jailbreak, data leakage, toxicity, PII exposure, hallucination detection

- Grafana dashboard with **55 panels in 8 sections** + **DEFCON** classification system (DC-1 to DC-5)
- Compliance: SOC2, ISO 27001, PCI-DSS, HIPAA + Machine Learning for anomaly detection

Stack: Node.js, TypeScript, Playwright, Claude AI, Garak, Grafana, Prometheus, InfluxDB, Docker, OWASP ZAP, PDFKit

QASL-MOBILE – Mobile Testing Framework **MOBILE**

Mobile testing framework for Android with Maestro, UX/UI analysis with Claude Vision, and device streaming.

- Mobile test automation with **Maestro**
- UX/UI analysis with **Claude Vision** for visual issue detection
- Real-time Device Streaming via **WebSocket**
- Web dashboard for device monitoring and control

Stack: Maestro, Android SDK, Claude Vision API, WebSocket, React

QASL-Manual – QA Manual Platform **PLATFORM**

Complete web platform for QA Manual team management with integrated Shift-Left workflow.

- Full management: Epics, User Stories, Test Suites, Preconditions, Test Cases
- Execution flow: Run → Pass/Fail → Defects → Retesting
- Dashboard with metrics: 408 TC, 99 executions, 35.4% pass rate
- CSV import from SIGMA Analyzer
- IEEE 829 reports for formal documentation

Stack: React, TypeScript, Node.js, PostgreSQL

QASL-Monitor – Unified Dashboard **DASHBOARD**

Unified control center integrating metrics from all QASL Ecosystem tools.

- Centralized dashboard with Streamlit
- Consolidated metrics from QASL Framework, INGRID, Sentinels, and Mobile
- Executive visualization for stakeholders

Stack: Streamlit, Python, Grafana, InfluxDB

METHODOLOGY

Shift-Left QA Methodology Suite

Comprehensive 6-phase methodology for implementing Shift-Left Testing in organizations.

- Based on **ISTQB v4.0, IEEE 829/830, and ISO/IEC 25010**
- ISTQB-style test documentation templates (Test Plan, Test Design, Test Cases)
- Process guides for Agile/Scrum teams with sprint integration
- Organizational adoption proposals with ROI metrics and risk reduction

EDUCATION

B.S. Communications & Electronics

ESCOELFA · 1985 – 1989

CERTIFICATIONS

- **ISTQB Foundation Level** – ISTQB (in progress)
- **Playwright Certification** – UPEX (2023)
- **API Testing Certification** – UPEX (2024)

LANGUAGES

- **Spanish:** Native
- **English:** Professional / B2+ (technical reading, writing, conversation in progress)

Elyer Gregorio Maldonado · Senior QA Tech Lead & Test Automation Architect

(Portfolio available upon request) · Last updated: February 2026