

Mohammadali Rahnama

Computer Engineer with Strong Testing & Automation Background

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Professional Summary

Results-driven QA Specialist with 4+ years architecting test automation frameworks for enterprise fleet electrification platforms. Delivered 95%+ automation coverage, reduced testing cycles by 80%, and optimized CI/CD pipelines enabling daily deployments. Expert in OCPP protocols, IoT integrations, and microservices testing with proven success validating complex systems serving 500+ connected vehicles across 6 countries. Combines deep technical expertise in Cypress, API testing, and cloud infrastructure with strong SAFe® Agile collaboration skills.

Technical Skills Summary

Programming Languages: JavaScript, TypeScript, Python, Java, SQL, HTML5, CSS3

Testing Frameworks: Cypress, Selenium WebDriver, PyTest, JUnit, TestNG, Cucumber (Gherkin)

Testing Methodologies: API Testing, UI Testing, E2E Testing, Performance Testing, Security Testing

Cloud Platforms: AWS (EKS, Lambda, S3, RDS), Microsoft Azure, Google Cloud Platform

Protocols & APIs: OCPP 1.6/2.0, REST APIs, GraphQL, WebSocket, MQTT

DevOps & CI/CD: Docker, Kubernetes, GitLab CI/CD, GitHub Actions, Jenkins

Education

Master of Computer Science

University of New Brunswick

📅 2021 - 2023 📍 Fredericton, New Brunswick, Canada

Postgraduate Certificate of Advanced Computer Science

University of Hertfordshire

📅 2020 - 2021 📍 Hatfield, Hertfordshire, UK

Experience

Quality Assurance Specialist

Siemens Canada Limited

📅 06/2023 - Present 📍 Fredericton, New Brunswick, Canada

RESPONSIBILITIES

- Architected comprehensive QA strategies for Depot360 AI, Siemens' flagship zero-emission fleet electrification platform supporting 6 international markets, while engineering 500+ automated test cases using Cypress and advanced frameworks to achieve comprehensive coverage across OCPP protocols, Geotab telematics, Maptiler visualization, and Home Reimbursement systems processing real-time data from 500+ connected vehicles.
- Orchestrated end-to-end testing for complex microservices architecture and spearheaded cross-functional collaboration with 40+ multinational team members across 6 time zones, implementing SAFe® Agile methodologies to validate OCPP charger management, real-time vehicle telematics, AI-driven charging optimization, and multi-tenant fleet operations while reducing defect escape rate by 60%.
- Validated performance of mission-critical systems processing 10,000+ daily transactions and streamlined data integrity verification for real-time telematics data from 500+ vehicles, ensuring 99.9% uptime for fleet charging operations and implementing automated validation checks that reduced manual verification effort by 75%.

KEY ACHIEVEMENTS

- Delivered 95%+ test automation coverage eliminating 80% of manual testing overhead, enabled daily deployment cycles for critical fleet management features, and revolutionized CI/CD pipeline performance by reducing execution time from 3 hours to 45 minutes through strategic test parallelization, ultimately saving 40+ developer hours weekly.
- Orchestrated seamless integration validation across 4 major third-party systems (Geotab, Solid Studio OCPP, Maptiler, AWS) ensuring zero-downtime data flow and 99.9% reliability, while facilitating successful market launch of Depot360 Managed Services across 6 countries and contributing to Canada's leadership in fleet electrification technology.
- Established comprehensive testing frameworks for Home Reimbursement features ensuring 100% accuracy in driver compensation calculations across multiple regions, and reduced post-release defects by 70% through advanced testing strategies, saving an estimated \$200K+ in production issues and customer support costs.

Software Tester (Co-op)

Siemens Canada Limited

📅 09/2021 - 09/2022 📍 Fredericton, New Brunswick, Canada

RESPONSIBILITIES

- Pioneered comprehensive test strategy development with 8+ team leads and developers accelerating project delivery timelines by 25% through enhanced testing efficiency, while executing and analyzing 200+ manual and automated test cases using advanced methodologies to achieve 95% defect detection rate and enable rapid issue resolution.
- Transformed and standardized 100+ product documentation sets improving accuracy by 40% and establishing consistent quality benchmarks across teams, while identifying and documenting 50+ critical software defects with detailed root cause analysis that reduced average resolution time by 35% and prevented production failures.
- Collaborated with developers on 20+ complex bug investigations implementing systematic troubleshooting approaches that reduced debugging cycles by 50%, and orchestrated comprehensive pre-release testing protocols ensuring 100% compliance with quality standards and zero critical defects in production releases.

KEY ACHIEVEMENTS

- Elevated cross-functional team performance by establishing quality gates and testing protocols that improved overall development lifecycle efficiency by 30%, while earning formal recognition for exceptional performance during co-op tenure through a commendation letter highlighting significant contributions to software quality improvements.

- Achieved Certified SAFe® 5 Practitioner certification through intensive training at Siemens enhancing team Agile practices and framework knowledge, while establishing the foundation for current expertise in enterprise-scale testing and demonstrating rapid learning ability with strong commitment to ongoing professional development.

Founder (Web/Graphic Designer)

P.A.G Fine Art Reproduction Services / Chop30 Online Printing Services

 10/2017 - 10/2020  Kerman, Kerman, Iran

RESPONSIBILITIES

- Developed and launched comprehensive online printing platform offering wide range of digital printing services with integrated e-commerce functionality, while establishing online art gallery featuring 1000+ high-quality artworks and enabling seamless browsing and purchasing experience for customers across multiple market segments.
- Designed responsive website layouts for both businesses ensuring optimal user experiences across all devices and platforms, while creating 100+ visual elements including logos and graphics that contributed to unique brand identity and attractive website appearance, and maintaining updated content management systems to ensure websites remained current and technically optimized.

ACHIEVEMENTS

- Registered unique brand by 2018 establishing strong market presence (Brand ID 139750140001060310) and negotiated multiple contracts across various business phases ensuring fruitful collaborations for marketplace and online gallery, while achieving consistent revenue growth through exceptional customer experiences and high-quality products resulting in 25% business expansion across both ventures.

Specialized Expertise & Domain Knowledge

Fleet Electrification & IoT Systems

IoT Platforms: Geotab Telematics, OCPP Charger Management, Fleet Electrification Systems

Architecture: Microservices, Event-driven Architecture, Kafka Message Streaming

Real-time Processing: Data Streaming, Event Processing, Performance Optimization

Regulatory Compliance: Multi-region Compliance, Data Privacy, Security Standards

Geospatial & Mapping Technologies

Mapping Platforms: Maptiler, GPS/Location Services, Mapping APIs, Geofencing

Data Visualization: Real-time Dashboards, Fleet Tracking, Route Optimization

Infrastructure Management: Infrastructure as Code, Monitoring, Scalability Testing

Web Technologies: React, Redux, Node.js, Express.js, Bootstrap

Enterprise Quality Assurance

QA Strategy: Test Architecture, Quality Gates, Risk Assessment, Compliance Validation

Automation Excellence: Framework Design, CI/CD Integration, Pipeline Optimization

Cross-functional Leadership: Multinational Teams, SAFe® Agile, Stakeholder Management

Database Systems: PostgreSQL, MySQL, MongoDB, Amazon Redshift, Redis

Professional Development & Communication

Problem Solving: Root Cause Analysis, Critical Thinking, Troubleshooting

Documentation: Technical Writing, API Documentation, Process Documentation

Version Control: Git, GitHub, GitLab, Branching Strategies, Code Review

Languages: English (Professional), Persian (Native), Arabic (Elementary)

Certifications

Pilot Certificate – Small Remotely Piloted Aircraft (VLOS)

Transport Canada

 Issued Feb 2022  Credential ID: PC2205000163

Licensed pilot certification for operating small remotely piloted aircraft in Visual Line of Sight operations

Certified SAFe® 5 Practitioner

SAFe by Scaled Agile, Inc.

 Issued Jan 2022  Credential ID: 51657319-0819

Enterprise-scale agile framework certification for large-scale software development and cross-functional team collaboration