# Mark McRae

## Senior Test Automation Engineer

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## Professional Summary

Test Automation Engineer with 8+ years of experience specializing in enterprise-scale automation frameworks, full-stack testing solutions, and CI/CD integration. Expert in Go and Java with proven track record of reducing testing cycles by 70% while maintaining 99%+ reliability. Built comprehensive automation platforms serving multiple product teams with advanced desktop applications using Fyne UI. Strong background in API validation, front end automation, performance testing, and mobile testing.

## Core Technical Skills

**Programming Languages:** Go (Advanced) • Java (Advanced) • Python (Basic) • JavaScript (Basic) • SQL(Proficient) • HTML/CSS(Proficient)
**Testing Frameworks:** Go Testing • Selenium WebDriver • TestNG • Robot Framework
**Desktop Development:** Fyne UI with Go • Cross-platform GUI applications
**CI/CD & DevOps:** GitHub Actions • GitLab CI • Docker • Azure DevOps
**Databases:** MongoDB • SQL Server • PostgreSQL • Database Testing and Validation
**Cloud & Infrastructure:** AWS S3 • Hyper-V • Containerized Applications • Microservices Testing

## Professional Experience

**Pinata | Quality Assurance Automation Engineer | *October 2021 - Present***
*Orlando, Florida (Remote)*

**Enterprise Go Test Automation Platform:**
- Architected and developed comprehensive Go-based testing platform serving multiple product teams
- Built full-stack coverage for web application frontend, backend APIs, and database testing
- Achieved complete test pyramid coverage: unit, integration, feature, and end-to-end testing
- Created automated test data management with data creation, cleanup, and environment provisioning
- Developed desktop UI using Fyne for test execution, data management, and performance analytics
- Implemented dynamic reporting: Slack, HTML dashboards, Workflow results, email and JSON APIs

**Scalable Java Automation Framework:**
- Built high-performance Java test suite with TestNG and Selenium integration
- Designed custom parallel execution architecture scaling limited only by compute resources
- Implemented seamless CI/CD integration with GitHub Actions and GitLab pipelines
- Created flexible reporting system with HTML visualization and JSON output for analytics

**API Integration & Testing:**
- Conducted testing for Stripe payments, AWS S3, Google APIs, and Cloudflare APIs
- Performed microservices testing including service mesh validation and contract testing
- Validated authentication flows, rate limiting, and inter-service communication

**Mobile Automation & Testing:**
- Developed mobile test automation suite using Go and Appium with WebDriver Client integration
- Built custom mobile testing tools and applications leveraging Android SDK/NDK capabilities

**Key Achievements:**
- Reduced testing cycles by 70% through comprehensive automation implementation
- Enabled daily deployments with 99% automated test coverage
- Created automated feature frameworks for faster deployment cycles and improved release velocity
- Created reusable frameworks that can be run from anywhere

### CVS Health | IT Quality Assurance Analyst | *August 2017 - September 2021*
*Greater Omaha Area (Remote)*

**Automation & Framework Development:**
- Developed Java-based automation scripts using Selenium for comprehensive webapp testing
- Created desktop application data tool combining all aspects of system inputs and outputs
- Designed lite SQL query application with Java and JDBC for precise database queries

**Test Strategy & Execution:**
- Developed master test strategies for functional, automation, regression, and negative testing
- Conducted performance, UI, and backend testing for databases and web application servers
- Managed test environment access administration across 13 different environments

**Process Improvement:**
- Automated environment access administration combining Java, PowerShell, and SQL scripts
- Analyzed Java source code and change sets for defect identification and timeline reduction
- Created executable JAR files for automation of simple to complex testing tasks

## Military Experience Highlights

### Defense Language Institute | Program Manager | *2015 - 2017*
- Managed academic technology projects across full lifecycle for 5,000+ student organization
- Project Manager for major institute events including Language Day 2016

### Afghanistan War Veteran | 2012

### Iraq War Veteran | 2009

### National Security Agency | Senior Intelligence Analyst & Supervisor | *2003 - 2010*
- Supervised 37-member intelligence analysis team across multiple disciplines
- Managed $2M+ computer systems, maintained 100% accountability of classified materials

## Education & Certifications
**Microsoft Software Systems Academy** - Server and Cloud Administration (2017)
**Defense Language Institute** - Associate of Arts, Persian Farsi Studies (2003)

**Professional Certifications:**
Oracle Java SE II Programmer I
Microsoft Technology Associate: Networking Fundamentals