GEORGE NJAU NGUGI

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Profile Summary

I am passionate Data-driven QA Engineer and QA Lead with 8+ years of experience ensuring software quality across web, API, and data-intensive systems. Strong background in manual and automated testing, API testing, performance testing, and CI/CD quality gates using modern DevOps practices.

I specialize in Data QA, validating ETL pipelines, data accuracy, data consistency, and data integrity, and I use Python and SQL to analyze test results, identify quality risks, and improve testing efficiency. I apply data analytics and basic data science techniques to optimize test coverage, reduce defects, and support continuous improvement.

As a QA Lead / QA Manager, I have experience leading QA teams, defining QA strategy, improving test processes, and collaborating closely with developers, product managers, and DevOps teams in Agile / Scrum environments. I am comfortable working in remote, distributed teams across different time zones.

Technologies and tools include Python, SQL, Docker, Kubernetes, AWS, CI/CD pipelines, API testing tools, test automation frameworks, and monitoring tools.
Kaizen guides my work — I believe in continuous improvement through data, automation, and clear communication.

I am seeking remote or hybrid roles in EU or LATAM as a Senior QA Engineer, QA Lead, QA Manager, or Data QA Engineer, where quality, data, and teamwork matter.

Areas of Expertise

- **Technical Skills:** Quality Assurance, Develops, Product Management Performance, Database Analysis, Data Analysis, Data Science & Engineering, ETL Pipeline creation& Devops Eng AWS, Automation and Manual Testing, Test Automation, Machine Learning
- **Soft skills:** Teamwork, Leadership, Collaboration, Communication, Problem Solving, Adaptability and Flexibility, Time management, Customer focus
- **Testing Tools**: Selenium, Appium, JMeter, SonarQube   **DevOps Tools**: Jenkins, Docker, Kubernetes, AWS, Frontend Dev Angular
- **Databases**: MySQL, PostgreSQL, MongoDB   **Languages**: Java, Python, JavaScript, API Coding
- **Frameworks**: Spring Boot, Django, React   **Project Tools**: JIRA, Confluence, Gitlab

Senior QA Engineer | KCB Bank Assurance | Nairobi, Kenya | April 2024 – Present

Responsibilities

- Led end-to-end quality engineering initiatives for Bancassurance products, covering Motor Insurance (Third Party & Comprehensive), Personal Accident, and Last Expense products.
- Collaborated with Business Analysts, Underwriters, and Core Banking Teams to define and validate functional and non-functional requirements within T24 and TurnQuest systems.
- Designed and executed manual, white-box, and black-box test cases across underwriting, policy issuance, binder management, claims, endorsements, and renewals modules.
- Validated pricing rules, cover limits, policy schedules, and risk details to ensure compliance with regulatory and business standards.
- Performed integration, UAT, and regression testing across multiple upstream and downstream systems, ensuring seamless data flow between core banking, insurance platforms, and external partners.

- Developed risk-based test strategies to prioritize high-impact scenarios, focusing on premium calculations, policy lifecycle events, and claims workflows.
- Acted as QE lead on multiple insurance product launches, managing test planning, execution, defect triage, and sign-offs within Agile and Waterfall project structures.
- Coordinated with vendors, underwriters, and internal IT teams to ensure timely resolution of critical defects and alignment on release timelines.
- Provided quality metrics and dashboards to senior stakeholders, supporting informed decision-making during Go/No-Go assessments.
- Supported post-production monitoring and issue validation, ensuring smooth policy issuance and claims processing post-release.

Key Milestones

Successfully delivered end-to-end QA for multiple insurance products, reducing post-production defects by 45% through structured test planning and risk-based coverage.

Accelerated policy issuance turnaround time by 30% by identifying and resolving key system and integration bottlenecks in T24–TurnQuest workflows.

Led the QA effort for Motor Comprehensive product rollout, ensuring full compliance with underwriting and regulatory requirements ahead of schedule.

Standardized test case libraries and reusable insurance scenarios, improving regression testing efficiency by 40% across product lines.

Acted as a bridge between business, IT, and underwriting teams, improving communication flows and reducing defect turnaround time during UAT cycles.

Senior SDET Engineer | Andela Inc | Nairobi, Kenya | June 2023 – Mar 2024

Responsibilities

- Led QA initiatives covering manual, white-box, and black-box testing to ensure functional accuracy and system stability.
- Applied Chaos Engineering principles to identify and resolve performance bottlenecks, improving system resilience and uptime.
- Designed and executed non-functional tests (performance, security, scalability) using JMeter, K6, and security scanning tools.
- Built and maintained a centralized QA metrics repository, enabling data-driven quality tracking and reporting.
- Directed a cross-functional team of QA/QC engineers, ensuring effective stakeholder communication and alignment with business goals.
- Conducted compliance inspections to meet technical standards, regulatory requirements, and quality benchmarks.
- Partnered with engineering, DevOps, and product teams to integrate QA processes across the SDLC.
- Mentored and trained QA engineers, promoting a culture of excellence, ownership, and continuous improvement.
- Developed and deployed proactive monitoring strategies to detect and fix issues before they impacted users.

Key Milestones

- Improved system efficiency by 35% through targeted performance monitoring and rapid issue resolution.
- Developed performance testing frameworks at Safaricom using JMeter and K6, achieving a 33% increase in software resilience and faster load times.

- Streamlined bug triage at Appcues Inc., reducing bug fix turnaround time by 12% through improved prioritization and collaboration.
- Automated manual test flows (e.g., Pins and Buttons) using Rainforest QA, cutting manual testing efforts by 70%.
- Built ETL pipelines and data streaming solutions using Apache NiFi to support QE Data Lake, centralizing QA data for better decision-making.
- Successfully led company-wide QA audits and cross-team quality reviews, ensuring standards compliance and stakeholder satisfaction.

QA Manager | Copia Global | Nairobi, Kenya | Nov 2022 – June 2023

Responsibilities

As QA Engineering Manager, I lead quality strategy, people development, and process optimization to ensure high-quality, scalable software delivery. I collaborate closely with product, engineering, and executive teams to align QA practices with business goals and release timelines.

I oversaw a team of 12 QA engineers, driving test automation, risk-based testing, and continuous integration to improve quality and accelerate delivery. I introduced BDD (Cucumber + Python) to strengthen QA–development collaboration, and led CI/CD pipeline enhancements that improved deployment success rates from 82% to 98% through automated quality gates.

I designed and executed a comprehensive QA strategy covering unit, integration, system, end-to-end, performance, and exploratory testing. By implementing Jenkins, GitLab, and scalable automated frameworks (including Appium for mobile), we achieved 95% automation coverage and reduced manual regression cycles by 70%.

Key Milestones

- Reduced critical production bugs by 65% through risk-based testing and early defect detection.
- Decreased testing costs by 40% through tool optimization and streamlined processes.
- Increased test coverage by 90%, improving release confidence.
- Managed a $500K QA budget, optimizing vendor relationships and resource allocation.
- Led recruitment, mentoring, and growth programs, achieving 90% team retention and developing strong QA talent.
- Supported 3 agile teams as Assistant Scrum Master, reaching a 95% sprint completion rate.
- Notable Project: Led QA strategy for Microservices Migration and Enterprise Data Pipeline, ensuring seamless transition with minimal defects and high platform reliability.

Software Automation Engineer | Copia Kenya | Nairobi Kenya | Sep 2019 – Oct 2022

Responsibilities

- Create and review test cases, preparing them for automation through detailed profiling.
- Develop automation scripts with Selenium and Katalon Studio to automate both functional and regression tests.
- Implement and manage CI/CD pipelines to streamline the GO LIVE process and oversee the integration of automated testing within CI/CD pipelines to ensure smooth deployments.
- Served as Assistant Scrum Master while scripting with Python and Java for Selenium Automate test cases for three mobile applications using Appium and Selenium.
- Design test-driven and behavior-driven testing frameworks for web and mobile applications using Python and Robot Framework.
- Recruit and onboard new talent, including junior employees, for the Quality Engineering team, mentor

team members in best practices for test automation and continuous integration.
- Collaborate with cross-functional teams to align testing strategies with project goals and timelines.
- Completed the creation of the Appium framework for automation, facilitating regression testing and saving 2 working days in testing effort.
- Managed a team of 8 QA engineers, driving career development and ensuring timely delivery of company objectives for 2 years, with some team members advancing from junior to senior roles.
- Developed RESTful APIs to extend Odoo functionality, including ordering and SMS modules, enhancing customer-centrism ordering processes.
- Wrote SQL stored procedures to automate manual verification tasks, significantly reducing manual effort.
- Collaborated in an Agile environment with cross-functional teams, including project owners and software developers, to ensure timely feature delivery to customers and Leading cross-functional alignment of QA strategies with project and sprint objectives.
- Designing and maintaining scalable test automation frameworks using Python, Java, Robot Framework, and Selenium, enhancing test coverage and execution speed.
- Leading A/B testing initiatives and establishing automated bug-tracking and prioritization systems.
- Reviewing and optimizing manual test cases for automation to ensure efficiency and scalability.
- Designing and executing cross-browser testing strategies across Chrome, Firefox, and Safari.

Key Milestones

Quality Engineering & Test Automation
- Developed and implemented integrated automation platforms, improving business process efficiency by 10%.
- Automated test cases for three mobile applications using Appium and Selenium as well as applied TDD and BDD methodologies to web and mobile testing workflows.

CI/CD & DevOps Integration
- Established and optimized CI/CD pipelines, streamlining GO LIVE processes and reducing deployment time.
- Integrated automated testing into CI/CD workflows, ensuring consistent, high-quality releases.

Data & Analytics Integration
- Designed and implemented ETL workflows using Apache Airflow for user behavior analytics.
- Built centralized data warehousing solutions in Snowflake for test results and user metrics as well as created real-time QA dashboards to monitor test coverage and bug metrics.
- Integrated data quality checks into pipelines, ensuring 99.9% data accuracy.

Team Leadership & Agile Collaboration
- Recruited, onboarded, and mentored junior QA engineers, contributing to team growth and knowledge sharing.
- Conducted weekly training sessions on test automation tools, QA methodologies, and best practices.
- Authored and maintained documentation for QA standards, best practices, and testing frameworks.
- Build an integrated software platform to automate business processes, boosting efficiency by 10%.
- Spearheaded the transformation of a monolithic application into a scalable micro-services architecture
- Reduced deployment time by 75% through the implementation of Docker and Kubernetes
- Enhanced system scalability to efficiently support a 200% increase in user load
- Reduced data processing time by 70% through the implementation of parallel processing techniques
- **Notable project: Microservices Migration, Enterprise Data Pipeline**

Lead QA Engineer | Flexpay Technology Ltd | Nairobi Kenya | Sept 2018 – Aug 2019

Responsibilities

- Automated critical test cases using Katalon Studio and Selenium, reaching 85% test coverage across payment workflows.
- Create regression testing time from 5 days to 8 hours through comprehensive test automation strategies.
- Developed and executed detailed test plans, cases, and scripts to ensure top-tier software quality.
- Integrated data science techniques into QA processes to predict defects and improve testing precision.
- Implemented and managed the Software Development Life Cycle (SDLC) to enhance code quality and

reduce development time.
- Coordinated with stakeholders to define project scope, timelines, and deliverables, ensuring successful execution.
- Mentored team members in data-driven QA practices and agile project management methodologies.
- Collaborated with data science and engineering teams to align initiatives with QA and product goals.
- Conducted in-depth data analysis to identify and resolve performance bottlenecks, significantly optimizing system performance.

Key Milestones

Performance Testing & Optimization
- Led performance testing for high-traffic platforms, including Tuskys.com and Flexpay's in-house systems, using Apache JMeter, achieving 99.9% uptime under 100,000 concurrent users and payments processing.

Test Automation & QA
- Automated critical test cases using Katalon Studio and Selenium, reaching 85% test coverage across payment workflows.
- Reduced regression testing time from 5 days to 8 hours through comprehensive test automation strategies

Project & Process Management
- Established a company-wide OKR/KPI tracking system, improving project delivery efficiency by 35%.

Leadership & Collaboration
- Led cross-functional teams of 20+ members across development, QA, and business units.

Strategic Initiatives & Impact
- Implemented a CI/CD pipeline, cutting deployment time by 60%.
- Spearheaded business development efforts, leading to a 40% increase in market penetration.
- Architected and launched the Flexpay Payment Gateway, processing 50,000+ daily transactions.
- Reduced payment processing errors by 75% through automated testing and continuous monitoring.

Software Developer & QA | Tezza | Nairobi Kenya | Jan 2018 – Aug 2018

Responsibilities

- Developed responsive, enterprise-grade front-end interfaces using Bootstrap and WordPress, ensuring cross-browser compatibility, accessibility, and performance at scale.
- Architected and deployed secure healthcare portals backed by MySQL, with a strong focus on data protection, compliance, and system scalability.
- Engineered custom WordPress plugins to extend platform functionality, enable modular deployments, and support multi-environment configurations.
- Integrated analytics and monitoring tools to track performance KPIs and user engagement, driving data-informed enhancements.
- Established and maintained Jira boards for structured sprint planning, issue tracking, and delivery oversight across distributed teams.
- Produced wireframes and technical mock-ups for client solutions (e.g., cwwilliams.org, pulmonaryclinicpc.com), bridging business requirements with technical execution.
- Collaborated closely with UX designers, back-end teams, and project managers to align architectural decisions with enterprise standards and delivery timelines.
- Mentored junior developers, promoting best practices in code quality, modular design, and agile workflows.
- Led process optimization initiatives to standardize development pipelines, improve release quality, and reduce deployment friction.
- Served as a technical liaison for clients, ensuring clear requirement translation, progress reporting, and post-deployment support.

Key Milestones

- Delivered a 60% improvement in page load times through structured front-end performance tuning and refactoring.
- Designed and maintained custom plugins, enhancing platform extensibility while reducing maintenance costs by 40%. **Notable project: C.W. William Community Health Care & Pulmonary Clinic, Mkopa Project**

Junior Software Developer | Parity Information Systems | June 2017 - Dec 2017

- Developed and maintained ERP modules for inventory and customer management using Java and Spring Framework.
- Reduced system response time by 40% through SQL query optimization and code refactoring.
- Assisted in designing and implementing RESTful Microservices using Spring Boot and Hibernate for modular system architecture.
- Collaborated with senior developers to containerize services using Docker, improving deployment consistency and scalability.
- Integrated services through API Gateway and configured Spring Cloud for service discovery and configuration management.
- Wrote unit and integration tests using JUnit and Mockito, improving code quality and reducing defects.
- Used Git for version control and Jenkins for continuous integration, supporting automated build and deployment pipelines.
- Participated in daily stand-ups and sprint planning sessions, gaining hands-on experience in Agile development practices.

Relevant Experience: Project Management

- **Project Planning:** Define project scope, goals, and deliverables.
- **Team Coordination**: Assemble and manage project teams (developers, testers, designers, etc.).
- **Budget and Resource Management:** Estimate costs and manage the project budget.
- **Stakeholder Communication:** Serve as the main point of contact between stakeholders and the team. Provide regular status updates, progress reports, and handle feedback.
- **Risk Management:** Identify potential risks and issues early, develop mitigation plans and manage changes proactively.
- **Quality Assurance:** Ensure project deliverables meet quality standards and user requirements.
- **Tool & Process Management:** Use project management tools (e.g., Jira, Trello, MS Project).
- Ensure adherence to development methodologies (Agile, Scrum, Waterfall, etc.).
- **Project Closure:** Ensure successful delivery and implementation.
- Conduct post-project evaluations and document lessons learned.

Founder/ Chairman Manyaham Limited (2022- present)

- Initiated and led the formation of a group venture aimed at pooling savings to purchase and resell prospective land; proud to see the company, Manyaham Limited, successfully operating since 2022.
- As Chairman, provided strategic guidance and oversight to ensure efficient management and accurate tracking of all member contributions. Spearheaded the acquisition of multiple land parcels, contributing to the company's asset growth to over 3.5 million shillings.

EDUCATION

- Master of Science at University of East London, Remote || FEBRUARY 2023 — DEC 2026 || master's program Ongoing
- Bachelor of Technology at Technical University of Kenya, Nairobi || JANUARY 2013 — DEC 2017|| Second-class upper Division || Bachelor of Technology in Computer Technology

- Kenya Certificate Secondary Education || Muhoho High School || Kiambu || FEBRUARY 2009 — NOVEMBER 2012 || mean grade of B+
- Certificate in Psychology at St. Paul's University || Graduated with Distinction || Team leadership and management.

PROFESSIONAL TRAINING AND CERTIFICATIONS

- ISTQB Certified Testert
- Kubernetes LS250 Engineer , Project Management
- AWS Data Analysis and Engineering

Referees

Gideon Arita
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