

| **Xavier Marchena Calderón**





| **Full Stack Developer**

| **Senior QA Automation Engineer**

Full-stack developer with over 7 years of experience in software development and quality assurance automation. My technical expertise includes proficiency in programming languages such as Python, JavaScript, C# and Java. I'm certified as an ISTQB Advanced Level Test Automation Engineer and ISTQB Foundation Level professional.

Certifications

-  **ISTQB Certified Tester, Advanced Level Test Automation Engineer**
(October 23, 2022)
-  **ISTQB Certified Tester, Foundation Level** (May 22, 2022)

Technical Skills

Languages	JavaScript, TypeScript, Python, Java, Ruby, PHP, C#
Test Automation	Selenium, Appium, Jest, Playwright, Postman, Artillery, JUnit, Test NG, Cypress

Software Development	<u>Front-End Development</u> Angular, Ionic, Next.js <u>Back-End Development</u> Node.js, Flask, SocketIO, Redis, Celery <u>Containers</u> Docker <u>Script Development</u> Shell Script, Bash Script, Batch Script, PowerShell
Version control	GitHub, Bitbucket, GitLab, Sourcetree
Databases	MySQL, MongoDB, Microsoft SQL
Infrastructure as Code (IaC)	Terraform

Professional Experience

Smash | Senior Quality Assurance Automation Engineer, Full Time (Jul 2022 - Present)

Modernization Team Aug 2022 - Present

Environment: _C# .NET, xUnit.net, GitHub, Azure B2C, Visual Studio Code, GitHub Copilot, Terraform, Azure DevOps, Selenium, Cypress, NuGet

Responsibilities

- Contributed to the development of three distinct test automation frameworks tailored to different aspects of the modernization initiative:

End-to-End (E2E) Testing Framework: Developed using C#, Selenium, and FluentAssertions, ensuring robust end-to-end testing capabilities for the microservices.

Integration (API) Testing Framework: Integrated into the API repository, utilizing xUnit, C#, and FluentAssertions to guarantee the reliability and integrity of API interactions.

Frontend Testing Framework (Cypress): Engineered a Cypress-based framework to rigorously test the React frontend, ensuring a functional user experience.

- Collaborated seamlessly with remote teams, orchestrating the strategic planning and execution of the monolithic codebase refactoring into microservices.
- Developed client methods within a Testing SDK for API testing, ensuring efficient and comprehensive interaction with microservices. The designed methods were customized to various API endpoints and scenarios, and the resultant functionality was encapsulated into a NuGet package, facilitating seamless integration into the testing environment.
- Leveraged Azure DevOps extensively to manage test cases, meticulously track progress, and promptly report and address issues, contributing to a well-organized transition to the microservice architecture.

Organizers Team Jul 2022 - Aug 2023

Environment: C# .NET, xUnit.net, Microsoft SQL Server, Azure DevOps, Fiddler, PowerShell, TestStack.White, FlaUI, Microsoft.Interop

Responsibilities

- Conducted manual testing to uphold overall software quality, working closely with development teams to ensure the timely creation of test cases in line with software requirements.
- Performed and reported on test execution during sprints, in addition to reviewing and optimizing the company's test automation solution to ensure its currency and efficiency.
- Developed and maintained comprehensive test plans, test cases, and test suites within Azure DevOps, ensuring thorough test tracking and execution as integral parts of each sprint.
- Utilized Fiddler to monitor and analyze API calls generated by various applications, including simulating error responses to assess the applications' error-handling capabilities, alongside leveraging TestStack.White, FlaUI, and Microsoft.Interop for desktop automation tasks.

RatherLabs | Performance Test Engineer, Part Time Contractor (November 2022 - February 2023)

Environment: Artillery, Playwright, Node.js, Docker, Postman

Responsibilities

- Collaborated with RatherLabs to perform comprehensive performance testing on a game in development. Leveraged Artillery, Playwright, and Node.js to simulate server load and automate client interactions, ensuring thorough testing of both server and client performance.
- Containerized automation code with Docker to maintain a consistent and isolated test environment, preventing conflicts with dependencies and configurations. This approach allowed for test runs on multiple environments.
- Worked closely with the development team to align test cases with software requirements. Participated in daily standups, sprint planning meetings, and code reviews to catch issues early in the development process and ensure the testing process remained synchronized with development progress.
- Utilized Postman to create mock servers based on expected responses, reducing the reliance on AWS resources. This approach led to cost savings and improved testing efficiency by testing API endpoints without actual AWS resource usage.
- Monitored and analyzed test results using tools like AWS CloudWatch and Artillery logs. Identified performance bottlenecks, such as slow API responses or high CPU usage, and collaborated with the development team to optimize the game's performance.

Proximity (10Pearls Company) | Senior Quality Assurance Automation Engineer, Full Time (April 2022 - Jul 2022)

Environment: Playwright, Artillery, Typescript, Node.js, Postman

Responsibilities

- Created a proof of concept test automation solution for web browser GUI and API using Artillery, Playwright, and Typescript, which involved setting up the

testing environment and installing the necessary libraries and packages.

- Designed and developed automated test cases for both the web browser GUI and API components, which involved analyzing software requirements and designing tests that could validate the functionality of the software.
- Ensured that the automated tests were able to run repeatedly and consistently by configuring the testing framework and resolving any issues that arose during the testing process.
- Focused on API testing using Postman, which involved designing and executing test cases for different endpoints and methods, and verifying that the responses were as expected.
- Utilized Postman's features such as test scripts, collections, and environments to make the testing process more efficient and automated. This included setting up test data using collections and environments, and creating test scripts to automate repetitive tasks.
- Collaborated closely with the development team to identify and resolve any issues related to the API, including issues related to performance, security, and functionality. This involved communicating regularly with the team and sharing test results and logs to help them diagnose and fix issues.

Proximity (10Pearls Company) | Mid-Quality Assurance Automation Engineer, Full Time (Jun 2021 - April 2022)

Environment: Appium, Ruby, Docker, Jenkins, Jest, Selenium, BrowserStack

Responsibilities

- Designed and developed an iOS app test automation framework using Appium, Ruby, Docker, and Jenkins, which included creating reusable code libraries, implementing best practices, and devising a robust test strategy to ensure thorough testing across various iOS devices.
- Employed Appium to automate testing for the iOS app, encompassing the setup of the Appium server, scripting in Ruby, and test execution on both real devices and emulators.

- Containerized the test automation code through Docker, simplifying cross-environment test execution and streamlining onboarding for new team members.
- Integrated the test automation framework with Jenkins, enabling automated, regular testing for timely feedback on app quality and facilitating continuous integration and delivery practices.
- Developed automated tests for a React application using Jest, Selenium, and BrowserStack. These tests covered diverse scenarios and user flows, written in JavaScript and executed across multiple browsers and devices as part of the build process.
- Collaborated closely with the development team to identify and address issues, utilizing JIRA and GitHub for issue tracking and management.
- Conducted code reviews and furnished constructive feedback to maintain high-quality, best practice-aligned code changes in both test automation and software development.

OMNi Costa Rica | Quality Assurance Test Engineer, Full Time (Aug 2020 - Jun 2021)

Environment: iOS, React, Android, MySQL, AWS, Jenkins, Bitbucket

Responsibilities

- Conducted manual testing for web and mobile applications to ensure quality and functionality met requirements.
- Performed extensive API testing using Postman, validating API calls and responses to ensure system reliability and consistency.
- Reviewed and executed an automated test suite developed with the Jest framework, ensuring that it met requirements and specifications.
- Developed RPA solutions to automate repetitive tasks and increase efficiency in the testing process.

- Utilized tools such as Git, Bitbucket, Jenkins, AWS, DataDog, Docker to support the testing process and improve workflow.
- Participated in integration testing, regression testing, and production testing to ensure that software met quality standards and performed as expected.
- Covered gaps in functional design specifications and requirements/business rules, ensuring that software was thoroughly tested.
- Analyzed system and business requirement documents, developed corresponding test scenarios, and created and executed detailed test cases in Xray.
- Logged and managed defects in JIRA to ensure they were properly tracked and resolved.
- Worked in an Agile environment, collaborating with developers and other team members to ensure quality and timely delivery of software.

RGT Global | Full Stack Developer, Full Time (Jan 2020 - Aug 2020)

Environment: Python, Angular, Ionic, MySQL, MongoDB, Redis, Celery, Docker, SocketIO

Responsibilities

- Developed a scalable and maintainable Reports API using Python, Flask, NumPy, and Pandas in Docker containers. This API enabled users to generate and view reports based on specific data criteria.
- Created a user-friendly mobile client with Ionic for consuming the Reports API, ensuring a consistent and responsive UI across various devices.
- Implemented a secure payment API for the company's website using Python and Angular, integrated with multiple payment gateways.
- Built a full-stack proof of concept (POC) for a betting game using Angular, Python, SocketIO, MongoDB, and Celery with Redis in Docker containers. This POC offered a simple and intuitive interface, real-time communication, and

scalable task processing.

- Utilized Python, NumPy, and Pandas for data analysis on reports, providing valuable insights for business stakeholders.
- Collaborated closely with the product team to meet user requirements and deadlines using Agile methodology, incorporating feedback into the development process.

QvoTech | QA Automation Engineer, Full Time (Aug 2019 - Jan 2020)

Environment: Selenium, MySQL, Python, Unittest Linux

Responsibilities

- Identified and documented detailed requirements for testing system needs and functionality.
- Utilized the Unittest framework for Python and analyzed user stories and acceptance criteria to develop automated tests using Python and Selenium.
- Communicated automation status, measures, issues, and corrective actions during development reviews, effectively working with the development team.
- Performed various types of testing, including API, integration, user acceptance, regression, and production testing, and reported the findings to the team.
- Updated reporting tools with testing results to keep track of progress and identify areas for improvement.
- Utilized Postman to create mock servers to simulate API responses, reducing dependency on external systems.
- Used JIRA to track defects and worked with the development team to ensure timely resolution of issues.
- Developed and maintained testing documentation, including test cases, test plans, and test scripts, to ensure a smooth testing process.

Universidad de Costa Rica | Software Developer, Full Time Contractor (Jan 2018 - Jan 2019)

Environment: Docker, Java, PHP, WordPress, LibreOffice, Shell Script, Batch Script

Responsibilities:

- Conducted research and development on Free Software, identifying and implementing solutions to benefit the university.
- Developed a Java extension for LibreOffice to improve the software's functionality and efficiency for university staff.
- Maintained a WordPress website and created a development environment with Docker to streamline the development process and improve team collaboration.
- Conducted research and development on a multi-platform installer using Java to simplify software distribution and installation across different systems.
- Created and delivered training courses and internal documentation to university staff to increase adoption and usage of the developed tool.
- Worked with university staff to identify pain points and inefficiencies in their workflows and developed solutions to address them.
- Utilized Git for version control and collaborated with a team of developers to ensure the successful delivery of projects.
- Conducted code reviews and provided feedback to improve the quality and maintainability of the codebase.
- Tested and debugged code to ensure functionality and prevent issues from arising in production.
- Utilized Agile methodologies to plan and manage project timelines and deliverables.
- Created technical documentation and user manuals to provide detailed information and instructions on how to use the developed tools.

Tek Experts | Technical Support, Full Time (Aug 2016 - Dec 2016)

Environment: Windows Server, Linux, Microsoft SQL, Oracle SQL

Responsibilities:

- Installed HP ALM/Quality Center application on both Windows and Linux environments.
- Configured the application and ensured it was fully functional.
- Troubleshoot any issues that arose during the installation process, including resolving installation failures and other issues.
- Provided technical support for installing, upgrading, migrating, and restoring Oracle and SQL databases.
- Worked with clients to understand their needs and provided guidance and assistance with the installation process.
- Assisted users and administrators over the telephone and via email, providing support and troubleshooting guidance to help them resolve any issues they were facing.
- Resolved application errors by researching knowledge bases and reviewing client logs to identify the root cause of the issue and develop a solution.
- Developed scripts and tools to automate repetitive tasks, such as database backups and restores.
- Created and maintained documentation related to installation and configuration processes, troubleshooting guides, and knowledge base articles.
- Collaborated with developers and other team members to identify and resolve complex technical issues.
- Worked with vendors to resolve issues related to third-party tools and components.

Freelance

Naxa Photography | Frontend Development, Freelance Project
(December 2023)

Environment: Cloudflare, Next.js, Node.js, Typescript, Tailwindcss

Responsibilities

- Developed Naxa Photography's website using the Next.js framework within a Node.js environment.
- Deployed the website efficiently using Cloudflare Pages and established automated deployment workflows by connecting to the GitHub repository.
- Designed and implemented various components for the website, including social network links, YouTube video integration, and high-quality image displays.
- Utilized Tailwind CSS for responsive and streamlined styling, ensuring a cohesive and visually appealing user interface.

uTest | QA Manual Tester, Freelance (Jul 2016 - Aug 2019)

Environment: Desktop (Windows, Linux, and Mac), Mobile (iOS and Android)

Responsibilities:

- Conducted manual testing for web, desktop, and mobile applications across different platforms, including Windows, Linux, Mac, iOS, and Android.
- Tested products across various industries, including education, healthcare, fitness, and media entertainment.
- Executed test cases provided by the client, following testing guidelines and requirements.
- Conducted exploratory testing to find and report bugs that may have been missed by the test cases.

- Worked with various testing tools such as Charles Proxy, and Fiddler to capture and analyze network traffic for web and mobile applications.
- Utilized mobile device emulators and simulators to test mobile applications on multiple platforms.
- Performed compatibility testing to ensure that the products were compatible with different browsers and devices.
- Conducted regression testing to verify that the reported issues were fixed, and new features did not introduce new bugs.
- Interacted with the client through uTest's communication platform to report the testing progress and discuss any issues or concerns.
- Followed uTest's best practices and testing standards, ensuring the quality and consistency of the testing results.
- Provided feedback and suggestions to the clients for improving the products' usability, functionality, and performance.