

Summary

- Experienced software developer specializing in automation, quality assurance, and full-stack development with a portfolio of web applications and automation solutions.
- Proficient in the full software development lifecycle with expertise in test automation, CI/CD implementation, and cloud infrastructure.

"Derek is an excellent partner in software development, skilled at both software design and test automation. He seeks clarity through questions and learning, regularly finding improvements and working with the team to implement them." - Chris Haverkate, Senior Developer, Digimarc

Experience

February 2023 - March 2025

Wegmans, Remote Work – *Software Development Engineer in Test (SDET) / QA Automation*

- Implemented automated end-to-end testing frameworks using C# and the Azure SDK, improving test coverage and reducing manual effort across teams.
- Provided mentorship and leadership in adopting test automation practices, fostering a quality-focused engineering culture.
- Designed and developed scalable software solutions and features using C#, ensuring robust testing protocols and high-quality deliverables.
- Maintained and enhanced Azure DevOps infrastructure through regular updates to YAML pipelines and Bicep templates, ensuring seamless integration with C# application requirements and necessary resource provisioning. Configured build and release pipelines in Azure DevOps to automate CI/CD processes, improving deployment reliability and reducing manual intervention.

November 2021 - February 2023

Digimarc, Remote Work – *Software Development Engineer in Test (SDET) / QA Automation*

- Enhanced the quality and performance of embedded device software by developing C++ and Python-based solutions for parsing and generating watermarks and barcodes.
- Implemented automated validation frameworks to support a high-profile, multi-million dollar customer project involving machine learning-driven instance segmentation technology.
- Championed the use of mocking libraries to improve testing practices, leading team training sessions and enhancing unit test reliability.

February 2018 - November 2021

Paychex, Rochester NY – *Automation Engineer*

- Automated complex disaster recovery procedures using Bash, PowerShell, Python, and other scripting tools, reducing manual effort and increasing reliability across teams.
- Developed and maintained UI automation solutions leveraging Selenium and an in-house automation framework, ensuring consistent and scalable test coverage.
- Integrated with various REST and SOAP APIs, including JIRA, Foreman, Tidal, MongoDB, and VMSphere, to streamline workflows and improve system integration.
- Created a custom Python Integration Test Framework, led team adoption, and provided training to enhance testing capabilities and collaboration.

July 2016 - January 2018

CloudChecker, Rochester NY – *Software Developer*

- Spearheaded the adoption of unit testing within the organization, growing test coverage from 0 to over 3,000 unit tests within a year and integrating it as a core component of the development workflow.
- Trained and mentored developers on the importance and implementation of unit testing, embedding it into pull request requirements and user story acceptance criteria.
- Designed and implemented new features, performed unit and integration testing, and resolved critical bugs for a platform that provided cloud monitoring and reporting for AWS and Azure.
- Leveraged C# .NET 4.6 Framework, MVC ASP.NET, JavaScript, and SQL to deliver high-quality software in an Agile environment, enabling customers to optimize their cloud usage and identify cost-saving opportunities.

August 2013 - June 2016

Buyquest, Rochester NY – *Software Developer*

- Automated critical business procedures in NetSuite and WooCommerce using server-side JavaScript and Python, increasing operational efficiency.
- Collaborated with fellow developers to establish and document standardized software development best practices, creating a reference for scalable and maintainable code.

Areas of Expertise

- *Languages:* Python, C#, Java, Javascript, C++, Bash, SQL, RegEx, CSS, HTML
- *Tools:* Visual Studio, Selenium, Playwright, Git, Office, Docker, Azure DevOps, Postman, XUnit, NUnit, Pytest, NSubstitute

Projects

Portfolio Website - drmdev.github.io

- Developed a responsive portfolio using Jekyll, Bootstrap, FontAwesome and JavaScript with a Go/PostgreSQL backend hosted on Railway for dynamic content.
- Implemented CI/CD with GitHub Actions for automated builds and testing, including Selenium WebDriver tests to validate UI functionality.
- Created Docker containers for backend services, ensuring consistent deployment across environments.

Chess Woodpecker - drmdev.github.io/puzzles

- Built a chess puzzle training web application that implements spaced repetition learning techniques to improve players' tactical skills.
- Developed with JavaScript for puzzle rendering and logic, backed by a Go API with a PostgreSQL database for the puzzle metadata.
- Designed a responsive UI using Bootstrap and CSS that works seamlessly across devices.

Community Chess Club of Rochester - drmdev.github.io/CCCR

- Modernized the local chess club's web presence with responsive design, event calendar integration, and tournament information.
- Implemented end-to-end testing using Playwright to automate UI validation, integrated with GitHub Actions for continuous testing.

XMage

- Contributed to an open-source Java application for playing Magic: The Gathering online, implementing new cards and enhancing the automated test suite.

Education

Rochester Institute of Technology - *Bachelor of Science in Information Technology*

Monroe Community College - *Associate of Arts, Liberal Arts and Sciences – Humanities and Social Science*