**Timothy D. Garza**

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[GitHub Repositories](https://github.com/hearingcolorsatx)

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| **P R O F I L E** |

I am a Marine Corps veteran with a strong work ethic and a proven ability to meet deadlines under pressure. As a goal-oriented Software Test Engineer with over 8 years of experience, I excel in Quality Engineering and have a track record of success in testing UI, API, and mobile apps across various industries with a strong foundation in functional, technical, and test management. I bring a creative thought process, adaptability to new technologies and environments, and a dedication to delivering thorough and high-quality performance.

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| **PROFESSIONAL EXPERIENCE** |

**SparkCognition - Sr QA Engineer | Austin, TX | April 2018 – June 2023**

I contributed extensively to the testing and quality assurance processes for web-based event prediction and risk analysis applications.

* **Manual Testing:**
  + Conducted comprehensive manual tests to evaluate application functionality and performance.
  + Regularly executed regression tests and smoke tests to ensure product stability.
  + Performed **sanity tests** on a regular basis, approximately 3-4 times per week.
  + Thoroughly documented over 100 detailed bugs and defects in **Jira**, providing accurate and actionable information.
  + Executed Comprehensive Data Migration testing for when Data was migrated from legacy systems to new systems with 100 % Accuracy
  + Regularly executed Data Quality tests on Production data when new changes were implemented that ensured 100% Quality
* **Test Automation and Management:**
  + Utilized tools such as **Nightwatch.js, Cypress.io, mocha** and **Python** to automate tests and improve testing efficiency.
  + Constructed and Ran Automations Suites within the **Selenium Framework**
  + Setup **npm** and **Node.js** for local testing and development.
  + Wrote more than 200 tests in **TestRail** and created Test Plans for seamless execution.
  + Leveraged **Postman** for **API testing** and maintaining organized test suites using Industry Standards , within the **Karate Framework**.
  + Used **jQuery** to traverse and manipulate HTML.
  + integrated Postman , Copada Frameworks with CICD Pipelines
  + Constructed test automation code with IntelliJ and/or Visual Studio Code
  + Introduced **Dredd** tool for **API document testing**.
  + Automated manual tests with **Pytest/Python**.

Tested microservice security according to authorization and authentication, writing tests to check such scenarios as per the scope and audiences defined in the **Keycloak** server.

* + Proficient in **Playwright**, a modern end-to-end testing framework for web applications, enabling robust automation of browser actions and interactions.
  + Extensive experience in creating and maintaining Playwright test scripts for web application testing across multiple browsers (Chrome, Firefox, WebKit).
  + Proficient in using Microsoft Entity Framework to facilitate seamless interaction with relational databases, simplifying data access and manipulation.
  + Extensive experience in designing and implementing Entity Framework data models, including entity classes, relationships, and migrations.
  + Skilled in writing **LINQ** queries to retrieve, filter, and manipulate data from databases, ensuring optimal performance and data consistency.
  + Proficiency in using Entity Framework Core for cross-platform .NET applications and Entity Framework for traditional **.NET Framework** projects.
  + Experienced in working with Apache Parquet files, a columnar storage format, to optimize data storage and processing for big data applications.
  + Proficient in creating, reading, and writing Parquet files in various programming languages, including **Python and .NET.**
  + Skilled in designing data schemas that align with Parquet's columnar storage structure to maximize query performance and minimize storage costs.
  + Proficient in using Playwright, an open-source browser automation framework, to automate web interactions and perform end-to-end testing of web applications.
  + Experience in writing Playwright scripts in multiple programming languages (e.g., **JavaScript, Python, or .NET)** to test web applications across various browsers **(Chromium, Firefox, WebKit).**
  + Skilled in creating and executing browser automation scripts for tasks such as navigating websites, interacting with web elements, and performing user simulations.
  + Familiarity with headless and headful browser modes in **Playwright**, allowing for both invisible and visible web automation.
  + Demonstrated ability to design scalable and maintainable test suites using **Playwright**, ensuring comprehensive coverage of application features and scenarios.
  + Utilized Playwright's advanced features, such as network interception, to simulate real-world testing conditions and capture network requests and responses for analysis.
  + Strong programming skills **in Java or JavaScript**, enabling the development of custom test scripts and automation frameworks.
  + Developed and maintained automated test suites using Java and popular testing libraries like **JUnit or TestNG**.
  + Proficient in JavaScript and its application in writing automated tests, particularly for front-end testing of web applications.
* **Collaboration and Coordination:**
  + Collaborated with an offshore team in Pakistan, effectively coordinating QA activities.
  + Worked with cross functional teams to troubleshoot and resolve various issues related to configuration, code and data.
  + Coordinated all backend microservice testing efforts catering to the UI application.
  + Supervised UI test & automation efforts and reported metrics to the team, QA manager, and product manager.
  + Created **Jenkins** jobs and **Spinnaker** pipelines, coordinating with DevOps to integrate tests into the **CI/CD** pipeline.
  + Attended **bug triage** meetings with the product owner and the dev lead/manager.
* **Testing Expertise:**
  + Demonstrated proficiency in **regression testing, mobile testing, API testing, UI testing,** and **performance testing**.
  + Possessed expertise in testing methodologies, ensuring the adoption of best practices.
  + Logged bugs and story bugs per the QA process company rules
  + Utilized a programming language (**JavaScript** and **Python**) to enhance testing capabilities.
  + Wrote test plans and test reports for product releases monthly.
  + Good understanding of **pulsar** messaging communication between microservices.
  + Experience testing and troubleshooting batch jobs created from **luigi pipelines**.
* **Comprehensive Testing Approach:**
  + Conducted functionality testing to ensure product features meet requirements.
  + Performed configuration testing to validate system behavior under different configurations.
  + Executed data testing to verify data integrity and accuracy.
  + Certifying the builds by running the **automation & smoke tests** for all the endpoints to make sure new changes didn’t break existing functionality.
  + Created **Pytest** fixtures for different scenarios as needed and enabled code reusability through common utility functions.
  + Wrote test plans and test reports for product releases monthly.
* **Cloud Infrastructure and CI/CD Pipelines:**
  + Played a crucial role in establishing and maintaining robust cloud infrastructure and **continuous integration/continuous deployment (CI/CD)** **pipelines**.
  + Orchestrated the setup and ongoing management of cloud infrastructure, ensuring optimal performance and scalability.
  + Designed and implemented efficient **CI/CD** pipelines for seamless development and testing environments.
  + Leveraged **Google Cloud** and **Azure** to deploy microservices on virtual machines using **Docker**.
  + Generated and ingested data for testing and development environments.
  + Performed database backups and migrations using **PostgreSQL**.
  + Maintained **Groovy** scripts to define new pipelines as scripts.
  + Maintained **Jenkins** servers, pipelines, and backups, ensuring smooth **CI** solutions.
  + Configured **Spinnaker** pipelines using templates for effective **CD** solutions.
  + Assisted in troubleshooting and restoring broken **Jenkins** and **Spinnaker** pipelines.
  + Deployed **GKE** and **AKS** clusters using the respective portals and **Terraform**.
  + Focused on leveraging advanced technologies and tools such as **Google Cloud, Azure, Terraform, Kubernetes, helm, Jenkins, and Spinnaker**.
* **Database Management:**
  + Set up and maintained **PostgreSQL** databases in **Google's CloudSQL** and **Azure Databases** for **PostgreSQL Flexible Servers**.
  + Utilized respective portals and **Terraform** to ensure efficient database management.
  + Migrated the application by dumping databases and inserting old data/schemas, then running scripts to complete new database changes.
  + Utilized Hyperion **Load testing** to test Validity of Financial Data in Oracle **hyperion**
  + Constructed **SQL queries** to Perform Data Pulls for Data Sanity testing in **Hyperion**
* **Infrastructure Deployment and Management:**
  + Configured and deployed core infrastructure components such as **nginx-ingress, cert-manager, Redis,** and **Pulsar** using **helm** and **Kubernetes Terraform providers**.
  + Integrated **Azure Key Vault** into our **Terraform** workflow for enhanced security.
  + Managed container registries in **Google Cloud** and **Azure**, along with artifact repositories in **JFrog Artifactory**.
  + Maintained **helm charts** for microservices, applications, and resources like **Pulsar**.
* **Troubleshooting and Documentation:**
  + Demonstrated expertise in troubleshooting a wide range of issues, including data, configuration, microservice, environment, and network-related problems.
  + Thoroughly documented resolutions and best practices to ensure effective knowledge sharing.

**Upgrade and Release Management:**

* + Assisted with upgrade documentation, particularly in cases where encountered issues needed to be addressed.
  + Analyzed causes and provided solutions to ensure smooth and successful upgrades.
  + Employed configuration management and release tracking methodologies using release branches in **BitBucket** with **Git**.

Throughout my roles, I consistently demonstrated a strong understanding of cloud computing principles and leveraged cloud technologies to optimize infrastructure and testing processes.

**Hearing Colors - Web Designer/Software Development Test Engineer (SDT) | Austin, TX | October 2013 - April 2018**

As the owner of Hearing Colors LLC, I have demonstrated a diverse range of technical skills, contributing to various aspects of media and music production, graphic design, video editing, and **web development**.

**Web Design and Development:**

* Developed and maintained web pages using **HTML**, **CSS**, and **JavaScript** for Hearing Colors LLC, ensuring a seamless and user-friendly experience.
* Gained exposure to **XML** and **PHP** while customizing and optimizing website functionalities.
* Implemented responsive design techniques to ensure optimal viewing experiences across various devices and screen sizes.
* Collaborated with designers and stakeholders to translate design concepts into functional web pages.
* Optimized website performance and loading times by minifying **CSS** and **JavaScript** files.
* Utilized front-end frameworks such as **Bootstrap** and **jQuery** to streamline development processes.
* Conducted thorough cross-browser testing and troubleshooting to ensure consistent website functionality.
* Implemented version control with **Git** to manage codebase with ease.

**Domain Registration and DNS Management:**

* Managed the registration of the domain name for Hearing Colors LLC, utilizing Namecheap as the domain registrar.
* Implemented **DNS** configurations to ensure seamless accessibility and proper routing of website traffic.

**SSL Certificate Implementation:**

* Ensured secure communication between the website and its users by implementing **SSL certificates**, providing a secure and reliable online presence for Hearing Colors LLC.
* Configured and installed **SSL certificates** to enable **HTTPS protocol** and encrypt data transmission.

**Manual Testing and Quality Assurance:**

* Assumed responsibility for testing all aspects of the website, performing thorough **manual testing** to identify and address any issues.
* Executed comprehensive testing strategies to ensure optimal website performance and user experience.
* Implemented responsive design techniques to ensure optimal viewing experiences across various devices and screen sizes.
* Conducted thorough cross-browser testing and troubleshooting to ensure consistent website functionality.

**Infrastructure and Deployment Strategy:**

* Hosting a working progress on **GitHub**, actively exploring options for a deployment strategy.
* Currently working on building a cloud infrastructure deployment strategy, aligning with industry best practices.

**Graphic Design and Video Production:**

* Utilized Adobe Photoshop to create visually appealing graphics, including the logo, for Hearing Colors LLC.
* Leveraged Adobe After Effects and Adobe Premiere to produce short video promos, enhancing brand visibility and engagement.

In addition to the technical skills mentioned above, I possess a strong creative mindset, and am dedicated to staying up-to-date with emerging technologies and continuously expanding my technical knowledge to drive innovation and success in the digital landscape.

***United States Marine Corp***   
Supply Administration and Operations, 3rd Marine Logistics Group | Iraq & Japan | November 2003 – October 2007

* Supervised up to 20 Marines during day-to-day operations.
* Managed the audit of personnel records to ensure regulatory compliance and coordinated training to ensure mission accomplishment.
* Deployed to Korea in August 2004 for Ulchi-Focus Lens (UFL) exercise and handled supply requisition and procurement processing for all units.
* Participated in the AmeriAsian program that taught children grades K-6 how to read and write in English.
* Deployed to Indonesia for humanitarian assistance in disaster relief during 2006.

***Operation Iraqi Freedom***

September 2005 – March 2006

* Coordinated and supervised the shipping and receiving of military shipments into and out of Iraq through Al-Taqaddum Air Base using information technology and RFID.
* Provided daily and weekly reports to senior enlisted leadership and commanding officers to present progress and status updates by building and managing a database using MS Access.
* Maintained a Secret Security Clearance during and after deployment.

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| **S E L E C T E D A C C O M P L I S H M E N T S** |

* Identified and redirected 228+ shipments in Iraq to the proper destination, saving $150,000 in extraneous costs to the Marine Corps by getting gear back into the distribution pipeline.
* Received the Korea Defense Service Medal (KDSM), Navy and Marine Corps Achievement Medal (NAM), and Humanitarian Service Medal (HSM).
* Letters of appreciation for community service projects.

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| **S K I L L S** |

* **Methodologies:** SDLC (Agile and Scrum) as well as test case documentation and review
* **Testing:** nightwatch.js, Cypress.io, mocha, jQuery, Pytest, PyCharm, TestRail, Jira,node.js
* **Cloud Infrastructure**: Google Cloud Platform (GCP), Azure, Docker, Kubernetes, Helm, Terraform, Artifactory, salt
* **CI/CD**: Groovy, Jenkins, Spinnaker
* **Source Control**: git, BitBucket, GitHub
* **OS**: Win, iOS and OS software-based products, RHEL, Ubuntu
* **Documentation**: Confluence, MS Word, Google Docs, Visual Studio Code
* **Languages**: Bash, Python, PSQL, HTML5, CSS, and JavaScript
* **Packet Management**: npm, homebrew, yum, and apt-get
* Good understanding of computer hardware and components
* Clear and effective communication skills
* Acute attention to detail

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| **E D U C A T I O N** |

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| **Associate of Arts Degree in Music**  Austin Community College  Member of the National Society of Collegiate Scholars  **Fundamentals of Software QA Engineering Certificate** Veterans 4 Quality | Austin, TX  Austin, TX | **2011**  **2017** |