Henry Manes

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SUMMARY

QA Engineer with 6+ years testing commercial software and three years testing AI features in production. Wrote 1,400+ automated tests that gate deploys on live LLM and text-to-speech services, covering mocked model output, malformed JSON, provider failover, timeouts, and data migrations. Also do the manual work: test plans, exploratory and regression testing, defect reproduction, and accessibility validation (Section 508, JAWS). Use AI coding tools every day and verify what they produce.

EXPERIENCE

Software Developer & QA — Independent Projects

August 2023 – Present | San Diego, CA

- Own quality for two production Node.js services, an AI Twitch chat bot and a text-to-speech platform. Wrote and maintain **1,402 Jest unit and integration tests** across 94 suites (~23,000 lines of test code) against a ~38,000-line codebase.
- Test AI generation flows (Google Gemini, OpenAI, Minimax/302 TTS) by mocking model responses and third-party APIs so non-deterministic output becomes repeatable. Cases cover malformed JSON from models, provider failover, retry with backoff, service-tier fallback, and timeouts.
- Use AI coding tools daily (Claude Code, Google Antigravity) and have them review each other's changes. Check every AI-suggested test case against actual production behavior before merging, and direct the cases for bugs seen in production.
- Built regression coverage for a cross-provider TTS migration, pinning voice-to-provider routing and Unicode edge cases (full-width parentheses, emoji, URLs) that had been breaking silently in production.
- Wrote integration tests for permission tiers (moderator, subscriber, VIP, everyone) against a mocked Firestore, checking that access rules fail closed on unrecognized or null input instead of silently granting access.
- Converted deploy-only pipelines into CI-gated regression suites across four repositories. Added GitHub Actions test jobs so npm test and go test must pass before any Cloud Run deploy, and wrote the missing unit tests for a proxy service that had no coverage at all.
- Root-caused a silently broken coverage pipeline: a global dependency override was forcing an incompatible major version into the coverage tooling, so it threw on every run and the project had no coverage signal. Restored reporting and removed an override that never addressed the advisory it targeted.
- Automated visual checks with headless Chrome (Puppeteer): render and screenshot every streaming overlay at a fixed 1920×1080 viewport, with scripted W3C HTML validation as a release gate.
- Reproduce and debug front-end defects across Chrome, Firefox, and OBS browser sources: rendering, WebSocket reconnection, and timing and race conditions. Track each one through to a fix in Git.
- Maintain GitHub Actions CI/CD that deploys containerized Node.js and Go services to Google Cloud Run, with Secret Manager integration and rollback via tagged images.

QA Engineer — MadCap Software

February 2019 – August 2023 | San Diego, CA

- Promoted to QA Engineer. Owned quality and stability of MadCap Flare and related products through manual and automated testing on an agile team.
- Wrote and ran test plans and test cases for new features, then ran targeted regression passes on every bug fix to confirm the fix and catch reoccurrence.
- Automated regression suites with Microsoft Power Automate, cutting regression time by **up to 90%** and leaving more room for exploratory testing.
- Investigated regressions, wrote clear reproduction steps, and worked with developers on root cause and fixes. Tracked defect trends to head off repeats.
- Led accessibility testing to Section 508 standards with the JAWS screen reader, finding usability defects that affected visually impaired users and seeing the fixes through.
- Tested end-to-end integration with Salesforce, checking data synchronization, API behavior, and workflow consistency across systems.
- Validated mobile web deployments on Linux servers for cross-platform compatibility. Ran internal training and product demos.

Technical Support Engineer — MadCap Software

May 2018 – February 2019 | San Diego, CA

- Turned customer feedback into feature requests and enhancements, and worked with developers to prioritize and resolve product defects.

- Published 10+ technical articles to the public knowledge base. Ran training sessions and product demos that supported sales.

Technical Support Analyst — MadCap Software
May 2017 – May 2018 | San Diego, CA

- Resolved ~300 support tickets monthly for a suite of XML-based authoring software, isolating issues across IIS, JavaScript, Elasticsearch, Apache, HTML, CSS, and XML.
- Reproduced customer-reported defects in virtualized environments (VMware, Parallels) and managed source control across Git, TFS, Subversion, and Perforce.

SKILLS

AI Testing: Mocked LLM responses for repeatable tests · malformed-output handling · provider failover and fallback · prompt building and tool-calling tests · generative AI APIs (Gemini, OpenAI) · daily AI coding tools (Claude Code, Google Antigravity) with human review.

QA & Testing: Test plan and test case design · manual, exploratory, functional, regression, and integration testing · defect reproduction, logging, and fix validation in Azure DevOps · API testing · release validation · black-box and white-box · accessibility testing (Section 508, JAWS) · TestDome top 25% certification, Software Quality Assurance.

Automation & Tooling: Jest · Go test · Puppeteer / headless Chrome · Microsoft Power Automate · GitHub Actions CI/CD · Git · Docker · Linux server and command line · ESLint · W3C HTML validation.

Languages: JavaScript · TypeScript · Python · Node.js · Go · Swift · SQL · HTML · CSS · XML.

Platforms & APIs: Google Cloud (Cloud Run, Firestore, Secret Manager) · Salesforce integration · REST APIs · WebSockets · React · generative AI APIs (Gemini, OpenAI).

EDUCATION

University of California, Berkeley — B.A., Economics & Japanese, minor in Environmental Economics (data science focus), 2014.
University of Tokyo — Urban Development, 2013.