

David Townsend

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SUMMARY

Senior QA Engineer with 10+ years of experience testing complex software and hardware across macOS, Windows, Linux, iOS, and Android. Worked on Adobe's Render Core team, validating GPU rendering across the full platform matrix (Mac ARM, Mac Intel, Windows x86 with NVIDIA CUDA and AMD OpenCL), with prior experience testing mobile apps, VR platforms, and AR hardware for companies including Meta and Magic Leap. Comfortable embedded with engineering teams, working in Git and GitHub-based workflows, and bringing personal familiarity with cryptocurrency wallets to product testing.

SKILLS

Platforms: macOS (ARM, Intel), Windows x86, Linux, iOS, Android, embedded and wearable devices

Testing & QA Methodology: Test plan authoring, end-to-end testing, regression testing, functional testing, black-box testing, root-cause analysis, hardware validation, GPU rendering validation, cross-platform matrix testing, bug triage and backlog review

Scripting & Version Control: Python, TypeScript, Bash (modifying tests and writing invocations for existing automation frameworks, including Adobe's internal harness); Git, GitHub

Network & Debugging Tools: Prior experience with Charles Proxy for mobile traffic inspection (Facebook mobile QA)

Crypto & Privacy Tech: Personal familiarity with cryptocurrency wallets (active ADA wallet user)

Hardware & GPU Architectures: NVIDIA (CUDA), AMD (OpenCL), AR/VR headsets (Magic Leap Gen 1 and Gen 2, Oculus, Gear VR), LIDAR, optical and biosensor systems

Lab & Controlled Environment Testing: Faraday cage electromagnetic interference testing, controlled dark room optical sensor accuracy rigs, multi-platform local test benches, remote hardware labs

Tools: JIRA, TestRail, Bugzilla, Adobe Premiere Pro, Adobe After Effects, Unity, Unreal Engine

PROFESSIONAL EXPERIENCE

Adobe — QA Engineer (Contractor with Russell Tobin)

Remote (San Jose, CA) | Apr 2025 – Present

- Validated Adobe's transition to full GPU rendering across Premiere Pro and After Effects as one of 5 QE on a 12-person Render Core team.
- Executed GPU rendering accuracy and performance validation personally across all six platform and GPU combinations in the test matrix (Mac ARM, Mac Intel, Windows x86, paired with NVIDIA CUDA and AMD OpenCL), using a local multi-platform test bench supplemented by a remote hardware lab. Authored the test plans driving this work.
- Traced performance regressions across a multi-decade Premiere Pro codebase by constructing targeted bash invocations to isolate failing cases in third-party benchmarking suites, then bisecting historical builds to deliver commit-level root cause analysis. A recurring workflow that let engineers ship fixes without re-running full test suites.
- Triaged, reproduced, and root-caused 100+ major and critical GPU rendering defects, roughly 20% sourced from third-party partners and customer forum reports that required translating vague external descriptions into reproducible, engineering-actionable bug tickets.
- Worked through a month-long cleanup of the Render Core team's bug backlog, then participated in weekly review sessions, taking on assigned and self-selected triage work. Recommended closures on obsolete-hardware and stale defects that were routinely accepted when the technical case was sound.
- Executed and adapted Adobe's internal test automation scripts (TypeScript tests run through a Python harness) by modifying configurations to target specific features, GPUs, and platform combinations across the test matrix.

Fitbit (Google) — QA Engineer (Contractor with Raindrops)

San Francisco, CA | Jul 2022 – Mar 2025

- Tested skin temperature sensor performance on Fitbit wearables using specialized lab setups: optical sensor accuracy rigs operated in controlled dark rooms and electromagnetic interference testing in Faraday cages. Ran pre-production devices through automated Python test scripts and recorded sensor data against performance benchmarks.
- Co-authored the assembly documentation used to rebuild the optical sensor test rig at Fitbit's Vietnam manufacturing facility, cataloging and photographing every component during disassembly to produce a step-by-step build guide for the on-site team.
- Authored 3 test plans for biosensor hardware validation.

Aechelon Technology — Runtime/Tools QA Tester

San Francisco, CA | Jul 2021 – Apr 2022

- Verified visual databases for defense flight simulators against government specification requirements, confirming real-world geographic accuracy of terrain, airports, runway markings, and asset placement on a product used in military training by U.S. and allied nations.
- Triaged nightly builds 2-3 times per week, diagnosing pipeline failures by isolating commit errors, texture issues, and asset defects, resolving problems independently before escalating to developers.
- Served as one of 3 QA engineers responsible for full system-level validation of high-fidelity rendering and visualization tools in a real-time simulation environment.

Magic Leap — QA Engineer (Contractor)

Sunnyvale, CA | May 2017 – Jul 2021

- Served as one of 2-3 QEs embedded with Bay Area Core Engineering across both Magic Leap Gen 1 and Gen 2 AR headsets, supporting validation of the device's foundational hardware subsystems (LIDAR, spatial mapping, eye tracking, hand tracking, cloud map recognition) while the company's larger QA organization operated out of Florida.
- Embedded with Bay Area Core Engineering to support a three-month pre-launch eye tracking tuning cycle for Magic Leap Gen 1, running a tight co-located feedback loop with developers: pulling engineering-provided builds, flashing to devices, executing tracking tests, and reporting results directly to the developer making the fix so the next iteration could ship within hours.
- Resolved a week-long production jitter and drift issue on Magic Leap devices coming off the Mexico assembly line, escalated directly by a Bay Area engineer after prior attempts to reproduce and patch the behavior had failed. Diagnosed that the factory QA environment (a featureless white office) provided insufficient visual anchors for the optical tracking system, and recommended adding varied-color markers to the room. The fix worked immediately and the issue was cleared without further code changes.
- Validated Magic Leap's cloud map recognition feature and its fallback to on-device mapping by testing across real-world environments (moving between cloud-mapped and unmapped spaces, forcing tracking loss through camera occlusion to verify recovery) and confirming the correct mapping mode had engaged using the device's internal diagnostic tools.
- Became the team's go-to resource for running live Magic Leap AR demos to new hires and internal stakeholders, loading demo builds, walking non-technical users through the experience, and troubleshooting issues in real time. Built deep enough familiarity with the demo content to diagnose most user issues by the audio cues playing in the headset, translating those observations into feedback on interaction friction points.
- Supported the transition of QA work to a Poland-based team, verifying recommended fixes and assisting with device environment setup.

Oculus (Meta) — QA Engineer (Vendor with Infostar)

Menlo Park, CA | Feb 2015 – Nov 2016

- Tested Unity and Unreal Engine SDK integrations prior to third-party developer release, ensuring external developers received stable, functional tooling for building on the Oculus platform.
- Tested the Oculus platform onboarding experience across Gear VR and Oculus hardware, validating how new users were introduced to and set up VR devices.
- Executed functional and regression testing across Oculus hardware platforms during a formative period in consumer VR.

Facebook (Meta) — QA Engineer (Vendor with Infostar)

Menlo Park, CA | Jun 2014 – Feb 2015

- Performed manual feature and regression testing on the core Facebook mobile app across iOS and Android, authoring and executing end-to-end test plans for mobile platform validation.

The Orphanage — Render Wrangler / Resource Administrator

San Francisco, CA | Dec 2007 – Feb 2009

- Troubleshot failed renders and managed plugin dependencies across render nodes in a professional VFX post-production pipeline using Adobe Premiere Pro and After Effects.

EDUCATION

Syracuse University — BFA, Computer Graphics (College of Visual & Performing Arts)

Academy of Art University — MFA, Computer Animation (coursework completed, degree not conferred)