

Griffin Hale Jack

Software Quality & Verification Engineer

Medical-device service background plus a build habit of proving software before shipping it: reproducible test cases, deterministic regressions, and defects documented well enough for someone else to act on.

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EXPERIENCE

Freelance Software Developer · Silicon Forest Solutions LLC

Aug 2026 – Present · Portland, OR

- Own 2 client engagements end to end, covering scope, rates, architecture, build and delivery: a market-fit and reach-estimation web app for independent practitioners, and a lesson scheduling system for a drum studio.
- Enforce architecture as tests rather than convention: module boundaries, one-way dependencies, and an append-only decision record are checked by the suite, so a violation fails CI instead of accruing.

Embedded Systems / Ultrasound Repair Technician · Sonovision

Jan 2025 – Aug 2026 · Portland, OR

- Hired for a narrow repair lane, then moved onto newer, more complex systems with little oversight, across about 40 machine models in regular rotation and 20 more occasional. Diagnosed them and their embedded boards from service manuals, hardware probing, and firmware tracing, where the wrong call is a \$500–\$3,000 part.
- Loaded software and flashed firmware on locked-down boards across 15 part types, and recovered hardware the official path treats as dead, including a \$5,000–\$7,000 machine already written off, then wrote Python and Rust tools that turned expert-only, one-shot procedures into repeatable, checkable runs.
- Rebuilt the OS and test-bed application on 6 machine models, the only route to the granular diagnostics and logs a hard fault needs.
- Built the shop's missing data and automation layer: nightly SQL ingestion across 30,000+ assets, browser tooling for inventory and order entry, and a Dockerized label service used daily by 12 people, then ran the rollout and support that got it adopted.

Food Service and Hospitality · Restaurants, diners, clubs, and food carts

2016 – 2023 · Portland, OR

- Back-of-house across six employers, on crewed line, solo line, and solo line-and-counter, where reading an operation mid-shift is the skill that transfers.

SELECTED PROJECTS

mostly private work — case studies at griffinhale.com/projects

Permit Office github.com/GriffinHale/permitOffice

Python · deterministic regression suite

- Shipped a v0.95 public beta behind 313 passing tests, including a deterministic seeded 12-week regression that exercises the full rules layer outside the host application, so a behavior change is caught as a diff rather than a bug report.
- Separated the rules layer from the ArcGIS adapter so the suite runs without a licensed desktop host, and covered the adapter with a fake so its paths are exercised too. Wrote the architecture docs, ADRs, and changelog alongside it.

Corne Arcane OLED github.com/GriffinHale/corne-arcane-oled

C · sanitizers · golden-frame tests · hardware acceptance

- Built a firmware validation pipeline where a release is only accepted after it runs on the physical device: host-side tests under sanitizers, exact-frame golden framebuffer comparisons, no-allocation checks, and flash/RAM budget gates.
- Kept the previous known-good firmware as a rollback artifact for every release, because the failure mode is a bricked physical device rather than a stack trace.

Scanta

C#/NET · imaging ingest · contract and integration tests

- Built and tested an imaging-archive ingest pipeline the same shape as a small PACS: assets enter from a capture device, cross authenticated service boundaries, and land in an archive exactly once.
- Wrote contract and HTTP integration tests that POST canonical fixtures verbatim, so the 2 services cannot drift apart silently, and verified idempotent crash recovery: an import killed halfway resumes without duplicating a record.

Firmware & Reverse Engineering

fault isolation · firmware diagnostics · documentation

- Turned one-shot procedures that lived in one person's hands into scripted runs with integrity checks on every write, so a fix is verified rather than trusted.

SKILLS

Test design	manual test cases · deterministic seeded regression · contract testing · integration and E2E tests · golden-output comparison · fixture and fake-adapter design
Defect work	fault reproduction · root-cause isolation · clear defect write-ups · regression verification · hardware and firmware diagnostics
Domain	medical-device service environment · imaging archive ingest (self-hosted, PACS-shaped) · embedded systems · service manuals and technical documentation
Tooling	Git · GitHub Actions · issue trackers · sanitizers (ASan/UBSan) · Playwright · Docker · Linux · Nix · SQL
Languages, primary	Python · C# · TypeScript/JavaScript · SQL · Go · Rust
Languages, shipped work	C (embedded) · C++ · GDScript
Languages, familiar	Kotlin · Dart
Communication	architecture docs · ADRs and changelogs · runbooks · training non-technical users

EDUCATION

Associate of Arts · Portland Community College

2023 – 2024 · Portland, OR

Coursework: computer science, networking, geography.

GIS Certificate · Portland Community College

In progress · Portland, OR