

Dustin M. Gordon

Quality Engineering & Modernization Leader · AI-Assisted Software Delivery · Federal Tax Systems

Northern Virginia · Active MBI / Public Trust Clearance

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PROFILE

Quality engineering and modernization leader with 20+ years in mission-critical software delivery and four years supporting IRS tax processing modernization — Form 1040-X, Kafka event streaming, and error resolution systems. Applies AI/LLM tooling to requirements analysis, legacy reverse engineering, and test design at scale. Active MBI / Public Trust clearance.

PROFESSIONAL EXPERIENCE

Project Manager / Requirements Lead — Sr. Quality Engineer

Apr 2025 – Present

S2 Technovations, Inc. · Ashburn, VA · Client: IRS (Subcontract)

- **ERS / RIVERS Modernization, Forms 94x & 1040 (Apr 2026 – Present):** Serve as Project Manager and requirements lead for modernization of legacy error resolution processing, owning scope, backlog structure, and alignment across business stakeholders, analysts, and engineering.
- Reverse-engineered undocumented legacy program logic using AI-assisted analysis, converting decades of embedded processing behavior into a documented, traceable requirements baseline that drives the modernized build — work that manual specification review could not have completed in the schedule.
- Translated legacy screen behavior and COBOL-derived error-code logic into a typed error hierarchy and Jira epic/story structure covering validation, math, and consistency error conditions.
- Built LLM-assisted traceability tooling reconciling extracted error codes against the delivered backlog; identified 22 uncovered form/error-code combinations and delivered a bulk-import CSV and coverage matrix that closed every gap in a single pass.
- **Kafka Event Streaming Platform (Feb 2026 – Apr 2026):** Led quality engineering for an event-driven migration — validated producer and consumer contracts, topic and partition configuration, consumer-group rebalancing, and offset commit and replay behavior.
- Verified message schema compatibility and end-to-end data integrity from source systems through stream processing into MongoDB, including dead-letter and retry paths; executed failure-injection scenarios (broker loss, consumer lag, duplicate delivery) to confirm ordering and delivery guarantees.
- Ran LoadRunner performance testing to establish throughput and latency baselines under projected peak filing-season volumes.
- **Form 1040-X Modernization (Apr 2025 – Jan 2026):** Continued automation and AI-assisted test design for amended return processing through the platform's transition to the modernized stack.

Senior Quality Engineer — IRS Form 1040-X Modernization

Jul 2023 – Apr 2025

Softcom, Inc. · Centreville, VA · Client: IRS (Subcontract)

- Owned quality engineering for Form 1040-X (Amended U.S. Individual Income Tax Return) modernization across the full engagement, validating amended return processing against legacy baseline behavior.
- Validated multi-column amended return logic — originally reported figures, net change, and corrected amounts — verifying recomputed tax, credits, refund, and balance-due outcomes across multiple prior tax years and filing status changes.
- Tested Drools business rule execution, confirming rule firing order, precedence, and outcome for validation, math-error, and cross-field consistency conditions.
- Built and maintained Java / TestNG automation suites in Eclipse with Maven builds, executed against services deployed to OpenShift (OCP) and AWS container environments.
- Performed SOAP and REST service validation with SoapUI against XML schema definitions, covering schema compliance, business-rule rejects, and acknowledgement handling.
- Validated MongoDB document persistence and data integrity between processing tiers.
- Applied AI/LLM tooling to generate test data permutations, derive test cases directly from functional specifications, and cluster defects for triage — materially reducing manual test-design effort per release.

Senior Team Lead, Quality Engineer IV — ITPE Modernization

May 2022 – Jul 2023

Peraton, Inc. · Herndon, VA · Client: IRS

- Led testing for the Individual Tax Processing Engine (ITPE) and High Volume Functional Testing (HVFT), validating tax processing logic against the Individual Master File covering millions of taxpayer records.
- Validated conversion of millions of lines of native Assembler Language Code (ALC) to Java (ITP12, ITP15), comparing business function, posting, and analysis output between legacy and modernized engines.
- Authored 1,000+ test cases and executed performance, functional, sanity, smoke, and back-end suites across successive filing-season releases.
- Logged and drove 3,000+ defects to resolution during the Individual and Business Master File rebuild.
- Automated defect recording, documentation, and execution of hundreds of test scripts, removing recurring manual effort from every release cycle.
- Served on the SAT team for new environmental tax rules released nationwide for the following tax year.

Senior UAT Quality Engineer — T-Mobile

Jan 2021 – May 2022

NTT Data · Seattle, WA (Remote)

- Owned final UAT acceptance and release approval for code deployed nationwide to millions of customers.
- Executed API testing with Postman and Lighthouse, load testing, and cross-platform validation across browsers, operating systems, and iOS/Android devices via SauceLabs.
- Performed WCAG accessibility testing on customer-facing pages serving millions of users.
- Developed acceptance criteria from requirements, authored test plans in Jira and qTest, and presented final UAT demonstrations to stakeholders.

Engineer Quality Specialist — NAEP / WTDOM

May 2018 – Jun 2020

HII (formerly Fulcrum) · Centreville, VA

- Built test cases and procedures for data, UI, web, and systems requirements across Kanban and SCRUM delivery.
- Served on the CMMI Level III Internal Audit team conducting company-wide product and process audits.
- Delivered Section 508 compliance training and testing using JAWS, NVDA, Axe, ANDI, and WAVE.
- Wrote and executed SQL queries validating dashboard reporting, data points, and visualizations.

Head Quality Assurance Test Engineer

Dec 2015 – Apr 2017

Sestra, Inc. · Sterling, VA

- Managed software releases for both device-side (IoT) and web applications in a startup environment.
- Acted as SCRUM master and managed the interface between QA, Product, Development, and Operations.
- Automated test scenarios and built automated executive reporting on release quality.

Senior Analytics & Operations Engineer

Jul 2006 – Aug 2015

Razorsight, Inc. · Reston, VA

- Managed the Analytics Production Support team based in India, coordinating US and offshore delivery.
- Automated end-to-end manual processes using scripting, cron, and Automate BPA Server, eliminating recurring points of failure.
- Owned ETL workflow design for receipt and processing of large-scale telecom data files.

Earlier: Expert User / Senior Support, Broadmargin / Control Point Solutions, Fairfax, VA (Feb 2003 – Jul 2006) — telecom billing data normalization, invoice mechanization, and product support.

SELECTED PROJECTS & TECHNICAL INITIATIVES

AI-Assisted Legacy Reverse Engineering

Built LLM-driven pipelines that parse legacy functional specifications and COBOL record layouts into structured, queryable error-code models — enabling requirements baselining and traceability analysis at a scale manual review cannot reach.

Local AI Engineering Stack

Designed and operate a GPU-accelerated local LLM environment (Windows/WSL2, Docker, Ollama) supporting private inference, agentic coding workflows, and MCP tool integration for engineering automation.

Full-Stack Application Development

Architected and maintain a multi-thousand-line vanilla JavaScript single-page CRM application, owning data model, UI, and release quality end to end.

CORE COMPETENCIES

AI-Assisted Legacy Reverse Engineering · Test Automation Architecture (Java / TestNG) · Federal Tax Systems (1040-X, 94x, ERS, IMF/BMF) · Requirements Management & Project Leadership · Event-Driven Architecture Testing (Kafka) · Performance Engineering (LoadRunner) · API & Services Validation (SOAP / REST) · Business Rules Validation (Drools) · Agile / SCRUM / Kanban Delivery Leadership · Section 508 / WCAG Accessibility

TECHNICAL SKILLS

AI & LLM Engineering

Claude / Claude Code, agentic coding workflows, prompt & context engineering, retrieval-augmented generation (RAG), local model hosting (Ollama, llama.cpp), GPU-accelerated inference, MCP server integration, AI-assisted requirements extraction, test generation, and defect triage

Test Automation & Performance

TestNG, Selenium, Cypress, Playwright, SoapUI, Postman / REST, LoadRunner, Applitools, Cucumber / Gherkin, SauceLabs, Fortra Automate RPA, PM2

Languages & Build

Java, Python, JavaScript, SQL, PowerShell, Bash, Maven, Eclipse, JSON / YAML, XML / XSD, Regex

Data & Messaging

Apache Kafka, MongoDB, SQL Server, Oracle, ETL pipelines, schema validation, large-scale data validation, Tableau, Business Objects / Crystal Reports

Rules & Services

Drools business rules engine, SOAP / REST service validation, XML schema compliance, message contract testing

Platforms & DevOps

OpenShift (OCP), AWS containers, Docker, WSL2, Linux, Windows Server, Microsoft Azure, Git / GitLab, Jenkins, CI/CD pipelines, Perforce Helix Core, Nagios

ALM & Collaboration

Jira, Confluence, Tricentis qTest, IBM DOORS / ETM / Jazz, Microsoft TFS, SharePoint, Miro, Figma, Okta

Accessibility & Compliance

Section 508, WCAG 2.x, JAWS, NVDA, Axe, ANDI, WAVE, Lighthouse, contrast and link validation tooling

Legacy & Mainframe

IBM Mainframe, COBOL record layouts, Assembler Language Code (ALC), GMF functional specifications, fixed-width file parsing

EDUCATION

Bachelor of Business Administration, Computer Information Systems

James Madison University · Harrisonburg, VA
1996 – 2001

CLEARANCE, CERTIFICATIONS & TRAINING

- Active MBI / Position of Public Trust Clearance
- Certified SCRUM Master
- CMMI Level III Internal Auditor
- Section 508 Accessibility Tester
- SSAE / SAS70 Compliance Certification (hands-on observation)
- Project Management Training & Certification

COMMUNITY & VOLUNTEER LEADERSHIP

Best Buddies & Special Olympics volunteer · Youth tee-ball, basketball coach and soccer referee · Cross-cultural team building with distributed teams in Bangalore, India