Jeremiah Walters

Software Engineer, Technical Leadership | Agentic Reliability, AI for Production Systems

Seattle, WA | linkedin.com/in/jeremiahwalters | github.com/jtwalters25

SUMMARY

Senior software engineer and delivery lead with 9+ years in tech, 8+ at Microsoft, applying AI to production reliability. Built and lead the SRE risk agent, an AI-powered platform that helps Azure engineering and SRE leadership investigate production risk from telemetry, incident history and service configuration, used by 50-75 engineers and leaders across 4+ teams. Sets technical direction for a reliability program of 10+ engineers while staying hands-on in Python and TypeScript: diagnosing distributed systems from telemetry, code and dependencies, and turning root causes into deterministic checks that prevent recurrence at scale.

EXPERIENCE

Senior Software Engineer & Delivery Lead, Microsoft Nov 2024 - Present
Azure Reliability | Cloud + AI org | Greater Seattle Area

- Built the SRE risk agent, an AI-powered risk-analysis platform for production systems (React/TypeScript frontend, Python and .NET backend services, Azure OpenAI agent orchestration). Grounded in per-service throttling configurations, outage root causes and scanner findings.
- Set technical direction and own delivery for a reliability program of 10+ engineers across two workstreams: align backlogs and priorities, lead design reviews, unblock cross-team dependencies, and report status, risks and progress to senior leadership.
- Diagnose production problems from telemetry: partnered with incident response on 10 outages and RCAs and built KQL dashboards linking outages to throttling and capacity pressure by service and over time, surfacing the recurring, high-blast-radius patterns worth fixing systemically.
- Turn root causes into deterministic mitigation: built and tuned 8 static-analysis scanners covering four throttling anti-pattern classes (bad 429 handling, blocking retries, unsafe HttpClient lifecycles, unbounded parallel egress), blocking regressions at PR time across hundreds of repositories (audit: 253 detections, 91.7% true-positive; false positives cut from 3.2% to 0.4%). Findings are hand-reviewed, so agent and scanner output is verified, not trusted on its own word.
- Extended the GitHub Copilot CLI agent harness with custom skills, a self-serve cross-team dependency tracker and automated delivery reporting; adopted and extended by teammates. Also maintain Microsoft's throttling best practices (rate limiting, retry and backoff under capacity limits).

Cloud Engineer, FastTrack for Azure, Microsoft Jun 2022 - Nov 2024
Cloud & AI App Innovation | Redmond, WA

- Technical lead for 30+ enterprise engineering teams on complex production issues across compute, networking, storage and data, from triage through resolution, across organizational boundaries. Turned recurring pain points into prioritized tooling and product improvements.

Azure Cloud Engineer, Microsoft Jul 2018 - Jun 2022
Azure Customer Engineering | Redmond, WA

- Diagnosed and resolved 100+ global production incidents in distributed workloads, working from telemetry, configuration and service dependencies, and fed recurring failure patterns back to engineering to prevent recurrence.

Frontend / Full-Stack Developer, Mercutio Apr 2017 - Feb 2018
Ecommerce agency | Outdoor and specialty retail

- Built full-stack ecommerce experiences in JavaScript: discovery, cart, checkout, authentication and account management.

SELECTED PROJECT

failure-lab (failure-lab.vercel.app) - public miniature of the work above: a retry-storm simulator plus hand-reviewed scanner findings for retry anti-patterns in public code.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Node.js, React, REST APIs; services also built in .NET

Agentic AI: Azure OpenAI, agent orchestration, agent skills and tool integrations, prompt and context engineering, GitHub Copilot CLI harness, verification of agent output (deterministic checks, hand-review tuning)

Reliability & Systems: Incident management and RCAs, diagnosis via telemetry (KQL, Power BI), distributed systems, service architecture, capacity and throttling, Azure (compute, networking, storage), microservices, CI/CD, static analysis, Azure DevOps, GitHub

EDUCATION & CERTIFICATION

Azure AI Engineer Associate, Microsoft Certified | Code Fellows, Seattle | UW, Certificate in Data Analytics