Andrew Walsh

Senior Software Engineer · Software Architecture · Agentic AI Tooling · Infrastructure · Privacy Engineering

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SUMMARY

Senior software engineer with 18 years of experience (9 at Google) building reliable, secure, and compliant production systems. Specializes in software architecture, agentic AI developer tooling, CI/CD and code health, and privacy engineering (GDPR, US state law, data residency). Leads cross-functional teams and sets engineering standards. Motivated by technology that puts people first: protecting them, respecting their privacy, and improving their lives.

PROFESSIONAL EXPERIENCE

Lykotek Consulting — Senior Software Engineer

Remote / Bay Area, CA | Sep 2026 – Present

Hands-on senior engineering that hardens and scales production systems for startups with AI-built PoCs

- Leading productionization for OrderlyAI, an AI-powered contract-to-close platform for real estate transaction coordinators, including CI/CD, a code health and security audit, and test-driven stabilization of critical paths.
- Guiding software architecture, infrastructure, and platform integration; defining coding standards and introducing agentic AI tooling to raise development velocity.
- Advising on privacy compliance architecture (GDPR, US state law, data residency) and internal data-handling policy, working with founders, investors, and partner consultants.

Google — Senior Software Engineer

Bay Area, CA | 2017 – Aug 2026

Five teams spanning infrastructure, privacy, and trust & safety.

Google-wide Impact

- Helped redesign Google's company-wide SWE interview pipeline to assess agentic AI skills.
- As a Java and Kotlin readability mentor, reviewed 500+ code changes and certified engineers across Google on code quality standards.
- Interviewed 120+ software engineering candidates for engineering proficiency, team fit, and role fit.

Cloud Data Center Design Engineering 2025 – 2026

- Built agentic AI workflows that automated troubleshooting, knowledge discovery, and development tasks, increasing team delivery velocity by 22%.
- Developed data center modeling features that scaled with the growth of deployments across Google's software-defined network and hardware fleet.
- Partnered across teams to deliver and support systems throughout the network planning lifecycle.

Corporate Engineering Support 2023 – 2025

- Developed internal support systems for Google employees, with a primary focus on UX analytics.

CORE SKILLS

Software Architecture:
Distributed systems, system and API design, service decomposition, platform integration, design docs and review, scalability and performance, modernizing legacy codebases

Agentic AI Tooling:
Agent skill and workflow configuration, development automation, failure-mode debugging, performance tuning

Productionization:
CI/CD (GitHub Actions), test-driven stabilization, code health and security audits, tech-debt remediation, monitoring, requirements gap analysis

Privacy & Compliance:
GDPR, US state privacy law, data retention enforcement and verification, data classification, auditing, data portability, identity handling, data residency

Languages:
Python, C++, Java, Kotlin, TypeScript, Go

Infrastructure & Delivery:
Google Cloud, container orchestration (Borg), Bazel, Git

Data & APIs:
Spanner, BigQuery, Pub/Sub, SQL, gRPC, Protocol Buffers, REST, data processor orchestration

Leadership:
Tech lead for cross-functional teams, engineering standards, mentorship, technical interviewing

REFERENCES ↗️

OPEN SOURCE

Cache APT Packages Action (maintainer): caches APT packages for GitHub Actions CI pipelines; 10k+ usages.

TypeScript APT Library: programmatic APT package management for DevOps automation.

Keep Sorted VS Code Extension: native editor support for Google's keep-sorted linter.

- As tech lead, built a UX analytics reporting platform measuring user experience across 5 products, integrating multiple backend and frontend technology stacks.
- Owned requirements, design, and delivery timelines, coordinating work across 4 engineering teams.

Corporate Engineering Privacy 2021 – 2023

- Designed and built a self-service privacy platform governing third-party tools used across Google.
- Extended GDPR controls to third-party tools: retention enforcement, auditing, and data classification.
- Led the project from requirements through launch, working with product, privacy, and legal partners.

Google Ads Privacy Engineering 2019 – 2021

- Built GDPR retention enforcement and verification pipelines for Ads, applied to all Google users globally.
- Implemented data portability, identity handling, and law-enforcement request compliance.
- Served as a privacy engineering resource for adjacent teams, raising compliance across products.

YouTube Trust & Safety Engineering 2017 – 2019

- Built and maintained a self-service anti-abuse platform that fraud, copyright, legal, and regulatory compliance teams used to act on all YouTube content.
- Partnered with policy stakeholders to translate abuse policy into enforcement workflows.

Xignite — Senior Software Engineer

Financial market data cloud based APIs for all financial instruments.

San Mateo, CA | 2012 – 2017

- Led engineering for private label offerings serving clients including NASDAQ and CME.
- Cut platform operating costs by 66% through infrastructure and engineering improvements.
- Built a white label solution that saved Bloomberg users over 20% on data licensing.
- Received an award for the BMO Skyway offering.
- Designed a REST API framework that decoupled front-end and back-end development, shortening release cycles.

Vibrant Technology — Software Engineer

Structural and mechanical engineering analysis application from FEA to modal analysis and machine monitoring.

Scotts Valley, CA | 2008 – 2012

- Performed a security audit and redesigned security protocols, reducing the attack surface by 99%.
- Refactored a 500,000+ line monolithic codebase into a modular object-oriented library system.
- Architected a machine monitoring system and data acquisition framework that expanded product capabilities.

Earlier

- Web Design Consultant (2006 – 2008)

PCAP-NG Reader (C#, RFC implementation) and **Fluent C++** (functional expression library).

EDUCATION

B.S. Computer Science, University of California, Santa Cruz

2012

- Summa Cum Laude (3.98 GPA); High Honors, Baskin School of Engineering
- David S. Lee and Campus Merit Scholarships

- Senior Systems Analyst, Yum! Brands (2001 – 2006): automated help desk troubleshooting; named Analyst of the Year.