

Staff Engineer (Executive)

(801) 687-8317
tyler.r.wall@gmail.com
linkedin.com/in/tylerrwall

SUMMARY

Staff Engineer who bridges engineering depth and executive decision-making, including knowing when to say "no." I make risk visible before it becomes cost.

Executive: Executive Partnership, Strategic Communication, Roadmap Influence, Business-Tech Alignment, Investment Justification

Business Impact: Cost Optimization, Revenue Enablement, Risk Management, P&L Impact Analysis, Stakeholder Management

Technical: Architecture Decisions, Technical Roadmaps, Platform Strategy

EXPERIENCE

Staff Software Engineer | AI Systems Architect, Unicity International | Provo, Utah Jan 2025 – Jan 2026

Tech Stack: GenAI, LLMs, TypeScript, Python, AST Parsing, PHP, AWS, Kubernetes, GitHub Actions, CI/CD, Context Engineering, MCP

- Built multi-agent AI migration system with 5 specialized sub-agents, reducing endpoint migration time from hours to under 10 minutes—enabled 289 endpoint migrations at unprecedented velocity.
- Reverse-engineered legacy compiled Acucobol systems without source access, producing 45+ migration specifications (1.75MB/50,000+ lines) through AI-assisted bytecode analysis with 99%+ query accuracy.
- Orchestrated 34 parallel AI agents for migration validation framework, achieving 90% error reduction in schema mapping (validation suite, before/after comparison).
- Designed Truth Source Architecture enabling AI agents to consume documentation and refactor code without hallucination—patterns now adopted organization-wide.
- Built AI sprint intelligence system using historical transcripts as knowledge base—benchmarked against human estimates at +/-1 story point (blind comparison, 6 sprints), achieving 2.5x throughput (story points over 6 sprints) and 13% sprint efficiency gain.
- Designed AI governance framework—read-only agent accounts, DevOps approval workflows, failure-as-state design principles—after identifying blast radius from an unscoped agent action.

Engineering Manager / Technical Lead, Unicity International | Provo, Utah Nov 2023 – Jan 2026

Tech Stack: Redis, Datadog, LaunchDarkly, PHP, Laravel, Docker, AWS, CI/CD, TravisCI, BPF

- **Risk Translation:** When leadership wanted to skip load testing, presented production failure cost vs. delay cost in business terms. We tested. Zero failures. Protected the revenue.
- **Structural Capital Recovery:** Delivered \$336K+ annual savings that finance quantified directly: cloud (\$278K), DataDog (\$26K), RDS (\$32K). Technical wins in CFO language.
- **Deal Prevention:** Built vendor evaluation framework that revealed hidden integration costs on proposed 10x ROI solution. Redirected investment to higher-value alternatives.
- **Executive Partnership:** Drove decisions in strategic meetings for 2+ years: risks retired, timelines negotiated, investments redirected. Built credibility to push back when engineering judgment warranted it.

Principal Engineer, ButcherBox | Remote Feb 2022 – Oct 2023

Tech Stack: OpenAI GPT-3, React, TypeScript, Node.js, Azure, Kubernetes, CI/CD, GitHub Actions, Shopify, Instacart

- **Strategic Guidance:** Provided technical guidance to executive leadership on application roadmaps, risk management, and architectural investments, influencing multi-year planning cycles.
- **Investment Justification:** Made the case for GPT-3 adoption when no one was asking for it. Built the business case that freed AI tooling budget and set the precedent for innovation spending.
- **Cross-Department Alignment:** Partnered with Operations, Customer Service, and Product leadership to ensure technical decisions supported business objectives across all stakeholder groups.
- **Risk Management:** Identified and mitigated architectural risks before they became business problems. Advised on technical debt tradeoffs with clear business impact analysis.

Senior Lead Software Engineer, ButcherBox | Boston, Massachusetts Jul 2019 – Feb 2022

Tech Stack: Kubernetes, Helm, Docker, Event-Driven Arch, Microservices, Azure, TypeScript, CI/CD, GitHub Actions, Zendesk

- Built Operations engineering team from 0 (solo) to 9 engineers, then broke it into specialized squads: Operations backend, CS Support (Zendesk dashboard app), and backend API migration team.
- Transitioned to lead all 3 teams simultaneously—12 engineers total across Operations, CS Support, and API migration—with clear ownership and delivery accountability.
- Engineered backend optimizations handling 10x traffic surge during COVID with zero scaling incidents, while competitors experienced significant downtime.

VP of Engineering & Lead Systems Architect (Founder), O2O HQ | O2O Global Marketplace | American Fork, Utah

Jun 2015 – Nov 2018

Tech Stack: AWS, Aliyun, PHP, Rest API, Fintech

- **Founder-Level Strategy:** As technical co-founder, shaped the business model and the architecture simultaneously. Platform capabilities had to match the China/US trade corridor reality, not a whiteboard.
- **Partnership Development:** Negotiated technical integrations with 19+ payment gateways and 8+ logistics providers. Revenue couldn't grow without them; the integrations were the product.

Principal Engineer, Janeiro Digital | Boston, Massachusetts

Jan 2019 – Apr 2019

Tech Stack: Solid Protocol, React, Node.js, Decentralized Web

- Rescued failing insurance platform 6 months behind schedule by restructuring architecture and coordinating 6-8 remote developers—delivered on-time with zero regulatory compliance issues.
- Delivered real-time quoting engine handling complex state-specific regulations for all 50 states, processing quotes in under 2 seconds across 200+ rule variations.
- Coordinated blended remote/on-site team under pressure, maintaining stakeholder confidence through transparent communication and consistent weekly delivery milestones.

Founder & Principal Solutions Architect, Antic Solutions | Springville, Utah

Jan 2013 – Jun 2017

Tech Stack: Node.js, Angular, PHP, E-commerce

- Secured and executed multiple NewBalance.com contracts, directing performance engineering that improved page load times 40% and increased conversion rates measurably.
- Operated as Fractional CTO for 5+ enterprise clients simultaneously, managing end-to-end SDLC and establishing engineering standards that outlasted engagements.

EDUCATION

Computer Software Engineering

2010 - 2013

Utah Valley University

Associate's Degree, Pre-Professional Associate in Science

2007 - 2009

Utah Valley University

PATENTS

Optimized Caching and Updating of Custom Assets RSS Algorithm (2012)

Process Patent for a native asset caching system that significantly improved load speeds across fragmented mobile platforms.

HONORS & AWARDS

Eagle Scout + 3 palms | New Century Scholarship | Dean's List