Reese Pollard

Senior Software Developer | Lead engineer on Baker Tilly Billing | Full stack, cloud & AI agents
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Summary

I am the lead engineer of Baker Tilly Billing. I took it from an idea to a company-wide production application in three months, and it now processes over $22M in invoices a week. I build the agentic tools that write it and the SRE agent that helps run it. Before I wrote software full time, I spent nine years designing and building networks, cloud systems, and infrastructure automation.

Experience

Senior Software Developer, Baker Tilly US, LLP (formerly Moss Adams LLP) | Seattle, WA (Remote) | Jul 2024 – Present

- Led application architecture for a team of 4 developers on its two biggest 2026 projects: Baker Tilly Billing and the Moss Adams Universal Identity v2 workspace automation platform.

Baker Tilly Billing

- Processes over $22M in invoices per week since launch.
- Serves 300+ billers, 4,000+ financial managers, and 2,000+ project leaders company-wide.
- Billing now runs from receipt to complete in a little over a day on average, with a median of half a day.
- Took the platform from 0 to 1 in three months as lead engineer, with a working demo in 2 weeks.
- Replaced 4,000 emailed billing spreadsheets, distributed twice a month, with a continuous per-project billing process.
- Delivered the billing process end-to-end with finance subject-matter experts and product management.
- Built full stack in C#, with REST APIs on ASP.NET Core and Entity Framework Core, a Blazor frontend, SQL Server, and OpenTelemetry, deployed to Azure Container Apps and Functions through Azure DevOps Pipelines.

Agentic development and orchestration

- Built the tooling, pi-materia and then Mako (a cross-harness agent router), that drove coding agents to write 90% of Baker Tilly Billing's code.
- Agents verify their output against isolated instances of the application. Adversarial subagents with fresh context review the code against acceptance criteria. CI, code review, and a full end-to-end suite follow.
- Introduced .NET Aspire and onboarded two development teams. Coding agents work in parallel across Billing, Universal Identity, and Core Data Service in repeatable, isolated .NET Aspire environments.
- Orchestrated the Core Data Service source data migration with pi-materia, then used it to build the early prototypes of Baker Tilly Billing.
- Building an SRE/operations agent for Baker Tilly Billing in TypeScript with Pi Durable, Effect, and FoldKit. Its purpose-built toolset lets it analyze signals from Application Insights and database performance queries, analyze stack traces, find problems in the application code, and open issues in Azure DevOps based on verified regressions and trends.

Moss Adams Universal Identity

Firm-wide access control, identity, permissioning, and onboarding platform.

- Grew the platform from a permissioning tool for Client Portal into the firm's event-driven ReBAC system, which automates permissions for downstream applications.
- Centralizes and audits permissions for 60k external and 15k internal users across 5+ downstream applications. It tracks millions of roles and resources: clients, projects, offices, and national practices.

Core Data Service

GraphQL service in C# and HotChocolate that unifies company data for applications.

- Led the service's migration to Workday, Salesforce, and SailPoint as its upstream sources.

Platform and operations

- Led annual disaster recovery tests for Client Portal and Universal Identity, demonstrating 30-minute recovery against a 24-hour recovery time objective (RTO). The tests log and measure each recovery for SOC compliance.
- Diagnosed SQL Server performance issues from bad query plans, pinned known-good plans to stabilize production, then restructured the queries so the optimizer picks good plans on its own.
- Own the team's Azure Bicep infrastructure as code (IaC), including changes, refactoring, and new infrastructure.
- Shipped TypeScript, React, and C# features to the Client Portal's 60k client users.

Senior Network Engineer, Moss Adams LLP | Seattle, WA | Jun 2017 – Jul 2024

- Designed and automated a Cisco ASAv VPN in Azure, connected directly to the private Virtual WAN. It scaled to carry the full remote workforce in March 2020.
- Built and deployed a multi-region Azure Virtual WAN network, written in Azure Bicep and PowerShell and deployed through Azure DevOps Pipelines.
- Designed and deployed an orchestration platform that automated Cisco router and switch IOS-XE and NX-OS software upgrades with Ansible, Python, Bash, Azure Bicep, and Azure DevOps. It cut maintenance windows and upgrade errors.
- Led the move of Azure Firewall policy to continuous deployment, using Azure Bicep IaC templates and Azure DevOps CI/CD pipelines.
- Automated public DNS on Cloudflare with Terraform, Azure DevOps, and Azure Automation, integrated with ITSM.
- Designed and developed a fully automated Cisco VoIP provisioning system in Python, running on a Linux Azure Function App.

Earlier roles

Network Engineer, Moss Adams LLP | Mar 2015 – Jun 2017
Lead Technician - Help Desk, Moss Adams LLP | Dec 2013 – Feb 2015
Help Desk and Deskside Support Technician roles, Moss Adams LLP | 2010 – 2013

Projects

Mako agent skills suite | Aug 2026 – Present
Open-source skills and task router for Pi, Codex, OpenCode, and Claude Code, built on pstack. Mako drives all my work.
github.com/rpollard00/skills

- Built Mako, a harness-agnostic skill router that chooses a playbook for a task and orchestrates subagents through planning, implementation, and verification.
- Validates agent output against live applications with tools such as Playwright or the Chrome DevTools MCP. Runs adversarial review on generated code and designs, preferring different model families when available.

pi-materia | Apr 2026 – Aug 2026
Deterministic, graph-based agent orchestrator built as a Pi extension and published on npm.
github.com/rpollard00/pi-materia

- Designed task-specific workflow graphs, including a build, verify, commit loop that retried failed verification until acceptance criteria passed.
- Retired it when agents got good enough to plan, fan out, and verify long tasks without a fixed graph. The lesson I kept is that some steps belong in deterministic code. In the skills suite those are verification scripts and CLI tools.

Skills

AI agents & LLMs: Agent orchestration, Agentic workflows, Multi-agent code review, Model Context Protocol (MCP), Claude Code, Codex, Pi, Pi Durable, T3 Code, GitHub Copilot
Languages & frontend: TypeScript, C#, Python, SQL, Rust, JavaScript, PowerShell, Bash, React, Blazor, Elixir, F#, Go
Backend & data: REST APIs, GraphQL, SQL Server, .NET, ASP.NET Core, Entity Framework Core (EF Core), .NET Aspire
Cloud & messaging: Azure App Service, Azure Functions, Azure Container Apps, Azure Service Bus, Azure SQL (incl. Hyperscale), Azure Storage (Blob, Queue), Azure Key Vault, Azure AD B2C
Testing & observability: xUnit, bUnit, Playwright, Unit testing, Integration testing, OpenTelemetry, Application Insights
Identity & architecture: Role- and relationship-based access control (RBAC, ReBAC), OAuth, OpenID Connect (OIDC), Single sign-on (SSO), Event-driven architecture, Domain-driven design
CI/CD & tools: Azure DevOps Pipelines, GitHub Actions, Azure Bicep, Terraform, Docker, Git, Jujutsu (jj), Linux, Neovim

Certifications

Certified Kubernetes Administrator (CKA) | 2024
Full Stack Open, University of Helsinki | 2022
Microsoft Certified: Azure Administrator Associate | 2022
HashiCorp Certified: Terraform Associate | 2022

Education

Western Washington University | 2005 – 2007