Adam Matthew Steinberger

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SUMMARY

Senior Azure and AI Development Engineer with **12+ years of experience** designing **secure**, **scalable systems** across AI, enterprise automation, and financial technology. I specialize in **end-to-end solution** delivery: from **process engineering** and **requirements analysis** to **architectural design**, **implementation**, and **team enablement**. My expertise includes building custom **Retrieval-Augmented Generation** (RAG) systems using **self-hosted** or **cloud-based LLMs**, designing **event-driven microservices** architectures, and creating **production-ready platforms** that integrate AI with enterprise systems like **Azure Service Bus**, **Microsoft Graph**, and **third-party APIs**. I excel at transforming complex business problems into **documented**, **executable solutions** that empower **junior and mid-level teams** to deliver independently. With deep technical foundations in **Python**, **JavaScript**, **.NET**, **Docker**, and **cloud infrastructure** (Azure/AWS), I deliver **modular**, **turnkey systems** optimized for **automation**, **scalability**, and **long-term maintainability**.

SUMMARY OF SKILLS

AI & ML Tools:	**RAG Architecture**, **Vector Databases**, **LLM Orchestration**, ChatGPT, Claude, Prompt/Context Engineering, AI Agents
Languages & Frameworks:	**Python**, **JavaScript**, **C#**, NestJS, Flask, .NET WebAPI, React, Next.js
Databases & Data:	**PostgreSQL**, **Snowflake**, SQL Server, FAISS, Vector Stores
Cloud & Infrastructure:	**Azure (Service Bus, Functions, Storage)**, **AWS**, **Docker**, **Ubuntu Server**, **CI/CD Pipelines**, **Microservices Architecture**
Integration & Automation:	**Microsoft Graph API**, **REST/gRPC APIs**, **Webhooks**, Job Schedulers, ETL Pipelines
Methodologies & Soft Skills:	**Process Engineering**, **Solutions Architecture**, **Technical Documentation**, Agile/Scrum, Consulting, Team Enablement
Privacy & Tooling:	**Proton**, **Ubuntu**, GrapheneOS, System76, Warp, Claude Code

PROFESSIONAL EXPERIENCE

<u>The Vizius Group</u>	Greenville, SC
Senior Azure and AI Development Engineer	**09/2025-Present**

AI Payroll Processor (GPT-5) - Enterprise Client

- Led complete **project discovery and redesign** for an automated payroll processing system, transforming initial requirements into a **production-ready architecture** within **45 days**.

- Applied **process engineering** methodologies to diagnose client pain points, analyze existing workflows, and deliver a **fully documented solution** including executive summary, architectural design, and technical specifications.

- Designed an **Azure-based microservices architecture** using **Service Bus**, **RAG**, and **Onion Architecture** patterns to automate end-to-end payroll processing from document ingestion to ADP API integration.

- Built a **Retrieval-Augmented Generation** (RAG) pipeline that scans **Outlook** and **SharePoint** data, stores it in a **vector database**, and uses **LLM-driven commands** to generate payroll data via **Excel automation** and **Microsoft Graph API**.

- Implemented **multiple human-in-the-loop** (HITL) checkpoints and **LLM-powered anomaly detection** to ensure data accuracy and compliance throughout the payroll workflow.

- Provisioned **Azure cloud resources**, created **boilerplate repositories**, and documented all **permissions**, **keys**, and **resource requirements** for seamless team onboarding.

- Decomposed the entire project into a **comprehensive JIRA Scrum board** (Epics, Features, User Stories), enabling **junior developers** to execute independently with minimal oversight.

- Delivered a **turnkey solution** designed for handoff, empowering client teams to build and maintain the system cost-effectively without ongoing senior-level dependency.

Local AI Infrastructure & Self-Hosted RAG Chatbot (Mistral-7B) - Non-Profit Client

- Built a **Retrieval-Augmented Generation** (RAG) system using **self-hosted Mistral-7B** and **FAISS** for vector search, enabling **privacy-first**, **context-aware chatbots**.

- Created an **OpenAI-compatible API** using **vLLM** connected to the custom RAG pipeline, allowing seamless integration with additional AI tools and client applications.

- Set up observability with **Grafana** and **Prometheus** to monitor token throughput, latency, and resource usage across distributed AI services.

- Designed a containerized **microservices architecture** using **Docker** and **CI/CD** pipelines, deployed across **Netlify** and a **bare-metal server** for scalable, modular infrastructure.

- Implemented **real-time chat** via **OpenWebUI** and orchestrated **backend automation** using **n8n** to support agent workflows and scheduled tasks.

Custom Cloud-Based RAG Chatbot (Gemini) - Sales Agency Client

- Built a separate **Retrieval-Augmented Generation** (RAG) system using a **cloud-hosted GPT** and JSON-based **document storage**, an **instruction-alignment** layer, and an integrated API-driven **web search** module.

- Developed a **professional**, **responsive web interface** with clean UX and modern styling to ensure a visually engaging user experience.

- Optimized content, metadata, and chatbot behavior specifically for **sales** and **engagement** use cases, including **custom instructions** and **SEO targeting** for chatbot services.

Push Notification System (Claude) - Non-Profit Client

- Delivered **production-ready Web Push notification system** with 159/159 passing tests and 85.84% test coverage using AI-assisted TDD methodology.

- Engineered **enterprise features** including timezone-aware scheduling (30-min delivery windows), intelligent message personalization based on user activity, and VAPID end-to-end encryption.

- Implemented **automated subscription cleanup**, Row-Level Security policies, and serverless Edge Functions with **hourly cron scheduling**.

- Built **comprehensive service worker** with mobile-optimized performance (<10s push delivery, <50ms activation) and PWA support.

- Achieved **85% cost reduction vs. traditional development** (5 hours vs. 30+ hours) while maintaining production-grade quality standards.

- Created **strategic AI workflow** combining codebase analysis, prompt engineering, and rigorous human code review for enterprise reliability.

Code Review & Architecture Redesign (Claude) - Non-Profit Client

- Conducted **comprehensive codebase analysis** using Claude Code full-scan followed by expert human review, assessing 190+ documentation files, 35 React pages, and 59K-line monolithic backend files.

- Delivered **three strategic reports**: technical analysis (B- grade, 75/100), executive summary translating technical debt to ministry impact, and detailed Onion Architecture refactor plan with 400+ hour effort estimate.

- **Identified critical issues** including 5% test coverage (vs. 60-80% industry standard), incomplete TypeScript adoption (40%), missing backend authentication middleware, and 16 manual maintenance scripts.

- **Designed three-layer architecture** (Controllers/Services/Repositories) with TDD methodology, CI/CD pipeline strategy, and phased implementation roadmap targeting 80%+ test coverage.

- **Created actionable four-phase refactor plan** prioritizing testing infrastructure, code organization, TypeScript migration, and automation to transform AI-built prototype into enterprise-grade system.

- **Provided clear ROI case for hiring professional developers**, reframing technical debt as business risk requiring expert intervention to prevent costly complete rebuild.

<u>**Lima One Capital**</u>	**Greenville, SC**
Senior Software Engineer	**05/2023-02/2025**

- Architected and delivered an **enterprise software suite** using **NestJS microservices** (gRPC, REST) with **PostgreSQL**, migrating legacy **Mulesoft APIs** and improving system efficiency.

- Led **full-stack development** for a mortgage broker platform using **.NET** and **ReactJS**, including credit report integration and pricing engine APIs.

- Built multiple **ETL pipelines** and **API integrations** connecting **HubSpot**, **SharePoint**, **Snowflake**, **Salesforce**, and third-party data providers for automated data flow across enterprise systems.

- Developed **Snow Portal**, a custom job scheduling system for **Snowflake** as an **Alteryx alternative**, and implemented automated **HR-to-ITSM** workflows.

- Prototyped modern UI initiatives and explored **DBT** for version-controlled data transformations.

EARLY CAREER

Transcat, Inc. – Senior Software Engineer (04/2022-01/2023)
• *Led team delivering .NET Web APIs and React app for lab equipment calibration; integrated internal systems and enhanced Magento-based e-commerce platform.*

LeaseTrack, Inc. – Senior Software Engineer (06/2021-04/2022)
• *Built Python + AWS Textract ML tools for insurance document parsing; developed Java Spring Boot annotation system for ML training workflows.*

Akmazio LLC – Senior Software Engineer (05/2020-05/2021)
• *Led Agile development for mobile networking platform; built C#/.NET backend with MS SQL, deployed to DigitalOcean.*

Bestpass, Inc. – Software Engineer (09/2019-04/2020)
• *Delivered toll billing system using C# MVC and Knockout.js; introduced automated unit testing for legacy codebase.*

New York State Insurance Fund – Software Engineer (03/2015-08/2019)
• *Migrated legacy systems (VB6 to C# MVC), refactored Oracle EDI integrations, mentored junior developers, and standardized engineering processes.*

Town & Country Computer Services – Junior Software Engineer (07/2013-03/2015)
• *Built C# ASP.NET web applications for insurance quoting, rating, and reporting systems.*

EDUCATION & CERTIFICATES

Bachelor of Arts in Computer Science, Skidmore College, Saratoga Springs, NY (Graduated: 2012)
Certified ScrumMaster, ScrumAlliance (Awarded: 2021)