

Russell Akram

Forward Deployed AI Engineer | Production Claude Systems | Regulated Industry Deployment
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SUMMARY

Forward deployed AI engineer and co-founder with 8 years turning customer problems into shipped, production software. I specialize in Claude: every production system I have built runs on the Anthropic platform, covering agentic workflows, RAG, MCP-compatible tool orchestration, structured extraction, and human-in-the-loop review. My work runs inside regulated environments: a HIPAA and FERPA compliant EHR platform in live pilot with a funded design partner, an AI form-automation tool piloted with the World Bank's risk assessment function, a live IAM governance platform that cuts document processing 94%, and paid HIPAA-compliant automation for a healthcare practice. I embed with stakeholders, own delivery end to end, and build for security review, not just demos. AWS Certified Solutions Architect Associate, CompTIA Security+, M.S. Cybersecurity in progress.

PRODUCTION CLAUDE & AGENTIC SYSTEMS

- **Claude platform depth (3+ years, production):** Anthropic API across Opus, Sonnet, and Haiku for reasoning, extraction, and cost-tiered workloads. Tool use, extended thinking, structured output with cited evidence and confidence scoring, zero-temperature extraction, prompt libraries, evaluation-driven iteration, and Claude Code as the primary development environment. Registered with the Claude Partner Network through RJ Autonomous.
- **Agentic and MCP-compatible orchestration:** multi-agent campus platform (Bernie) with MCP-compatible tool orchestration across identity and ticketing systems; multi-step extraction agents (Apex Steward, FormSync) with human-in-the-loop approval before data lands in production; automated email triage agent (IMAP plus Claude) classifying and routing inquiries across business accounts.
- **Architecture for quality, safety, latency, and cost:** multi-provider model gateway in Gnosis routing by task across Claude and Groq with BYOK, plan-tiered access, and cost enforcement at the dispatcher; hardening framework and repository audit for Apex Steward covering bounded state, key handling, and tenant isolation.

EXPERIENCE

Co-Founder & Forward Deployed Engineer | RJ Autonomous, Arlington, VA Sep 2018 – Present

- **Embedded client delivery:** lead discovery with stakeholders, translate ambiguous business problems into AI use cases, and deliver working software from first conversation through production and support. Primary technical contact across SMB, mid-market, and institutional accounts.
- **FormSync AI, piloted with the World Bank's risk assessment function:** transcript-to-form automation. Claude extracts field values from uploaded .docx and .xlsx forms with cited evidence and confidence scores, an analyst review UI verifies before export to PDF, DOCX, or CRM webhook. Commissioned by and sold to a risk analyst for her team's workflow.
- **Apex Steward, agentic IAM governance platform (live):** multi-tenant SaaS where Claude and Voyage AI extract roles, applications, and entitlements from vendor documents into a live role matrix and NIST CSF maturity dashboard. Cuts document ingestion 94% (roughly 8 hours to 30 minutes per policy), saves about \$30K per mid-market engagement, and replaces \$150K to \$500K enterprise IGA implementations at over 70% lower total cost of ownership. Partnership conversation underway.
- **HIPAA-compliant billing automation, paid healthcare client:** architected an automation pipeline for a therapy practice running SimplePractice and QuickBooks. Two-stream design keeps PHI out of the accounting path; a Python de-identification layer protects transaction data before Claude analysis; AWS RDS with KMS encryption, CloudWatch, and CloudTrail. Signed BAA directly with the practice. Scope expanded mid-engagement at the client's request.
- **ApexAudit, production AI audit tool (live at rjautonomous.com/ai-tools):** Python on AWS Lambda calling Claude through a multi-step prompt chain to generate custom reports, with an RDS and S3 pipeline and Stripe payments. Prompt chain iterated across 3 evaluation cycles.

- **Gnosis and Cardinal Hub, full-stack AI platforms:** Gnosis is an AI-native workspace (Next.js, TypeScript, Supabase Postgres with RLS across 22 migrations, pgvector, multi-provider gateway, M365 and Google OAuth, macOS Electron wrapper). Cardinal Hub is a multi-tenant conference-center SaaS with Marymount University as design partner (Postgres RLS, Entra ID SSO, Claude-assisted intake wizard, AI report builder, Stripe card and ACH).

Co-Founder & Lead Architect | Haven, HIPAA/FERPA-Compliant EHR Platform 2026 – Present

- **Live pilot with a funded design-partner practice:** co-founded a HIPAA and FERPA compliant electronic health record platform for therapy practices, now stress-tested against production workflows by an anchor practice. Hold final architect authority over infrastructure.
- **Security architecture built for audit:** PostgreSQL row-level security enforced through a NOBYPASSRLS role, field-level AES-256-GCM encryption, TOTP multi-factor authentication, append-only audit logging, peer-to-peer encrypted telehealth, and X12 837P claim generation. 309-test regression gate protects every release.
- **Privacy-first AI design:** AI-assisted clinical notes with transcripts destroyed on note signing and no retention or training; neither founder holds standing access to patient data. Eight-phase build plan from security skeleton through SOC 2 readiness.

Senior IT Analyst | Marymount University, Arlington, VA Sep 2022 – Present

- **Bernie, Claude-native multi-agent campus platform (lead developer):** RAG over institutional content with vector retrieval, MCP-compatible tool orchestration, Azure hosting, and a coordinate map layer for live tours. Ships through institutional governance: director review, VP roadmap direction, and collaboration with marketing and design on virtual tour integration.
- **Identity and security operations in a FERPA environment:** administer Microsoft 365, Entra ID, SSO, SAML, and Intune for 300+ users. Drove 300+ endpoints to 100% security compliance in 6 months via Intune Autopilot.

ADDITIONAL PROJECTS

- **PowerPack:** native macOS technician tool (Swift, SwiftUI, SMapService XPC) that repairs broken Cisco Secure Client installs, turning a 30 to 60 minute troubleshoot into a one-click repair. Preparing open-source release.
- **Research:** Netflix seasonal data science (neural prediction models, Spark pipelines, 2x processing speedup); Oxford post-quantum cryptography research.

TECHNICAL SKILLS

- **Claude & LLM Engineering:** Anthropic API (Opus, Sonnet, Haiku), tool use, extended thinking, structured output, MCP-compatible orchestration, Claude Code, OpenAI API, Groq Llama, Voyage embeddings, RAG, pgvector, prompt engineering, evaluation frameworks, human-in-the-loop controls, multi-provider routing with BYOK
- **Languages:** Python, TypeScript, JavaScript, SQL, Bash, PowerShell, Swift
- **Backend & Data:** PostgreSQL with row-level security, Supabase, Prisma, RDS with KMS, pgvector, X12 837P, schema migrations, ETL, de-identification pipelines
- **Cloud & Security:** AWS (Lambda, EC2, S3, RDS, KMS, IAM, VPC, CloudWatch, CloudTrail), Microsoft Azure, Entra ID, serverless, multi-tenant architecture, AES-256-GCM, TOTP MFA, OAuth, NIST 800-53, NIST CSF, CIS AWS Foundations, HIPAA, FERPA, SOC 2 readiness
- **Full-Stack & Integration:** Next.js, React, Node.js, Electron, REST APIs, webhooks, Microsoft Graph, Google Drive API, Stripe (card, ACH), BetterStack

CERTIFICATIONS & EDUCATION

- AWS Certified Solutions Architect Associate (2026) | CompTIA Security+ (2026) | AWS Certified Cloud Practitioner (2025) | Claude Certified Architect Foundations (in progress) | CISSP (in progress)

M.S. Cybersecurity (in progress) | Marymount University, NSA/DHS CAE-CDE Expected 2027

B.S. Cybersecurity (GPA 3.9) | Marymount University 2018 – 2022

Study Abroad, Post-Quantum Cryptography | University of Oxford 2021