

JONATHAN ADAMS

AI ENGINEER · FORWARD-DEPLOYED & APPLIED AI · ENTERPRISE IT SYSTEMS



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PROFESSIONAL SUMMARY

Enterprise engineer turned founder who ships production LLM systems inside regulated environments. Founder & principal engineer of **Bingo Solutions**, an enterprise IT & AI consulting, implementation & integration firm (“Enterprise IT & AI, engineered for production”), and **forward-deployed consulting engineer to a national third-party benefits administrator** — delivered the engagement’s full scope: a natural-language AI service-intake agent for Freshservice ITSM and IT-operations observability across a VMware vSphere / Nutanix / Cohesity / Zerto / Tanium / DataDog estate. Architect and sole builder of **Bingo Claims**, a citation-locked claims-adjudication platform (Claude Opus 4.6 tool-use agent, knowledge-graph retrieval, deterministic 11-stage pipeline) engineered for 3M+ document scale. Enterprise envelope throughout: AWS, Active Directory SAML/SSO, zero-trust ingress, SOC 2 & NIST 800-53 control families, HIPAA-ready architecture. Seeking **AI Engineer, Forward Deployed Engineer (FDE), and applied/solutions AI roles** where customer-facing deployment, systems depth, and shipping velocity all matter.

TECHNICAL SKILLS

AI / LLM Engineering: Production LLM systems, tool-use / agentic systems with bounded cost & latency budgets, retrieval-augmented generation (RAG), knowledge-graph + BM25 retrieval, citation-first & audit-ready design, structured data extraction, prompt engineering, confidence scoring with human-in-the-loop routing, conversational service-intake agents (ITSM intent routing), AI governance & assurance, Anthropic Claude (Opus 4.6 in production; Batch API, prompt caching), OpenAI embeddings, document AI (PyMuPDF, pdfplumber), AI-assisted engineering toolchain (Claude Code, GitHub Copilot, Codex & Gemini CLIs, LiteLLM / OpenRouter gateways).

Backend Engineering: Python 3.12, FastAPI, async SQLAlchemy 2.0, Pydantic v2, Celery + Redis worker pipelines for long-running workloads, REST API design & versioning, session & auth flows, Node.js services, schema design with migrations and referential integrity.

Data Platform: PostgreSQL 16 (GIN full-text indexing, tenant-level partitioning, read replicas), Redis caching & task brokering, MinIO / S3-compatible object storage with hash-prefix sharding, retention / backup / data-residency design.

Cloud & Enterprise Infrastructure: AWS (EC2, S3, RDS, IAM, VPC) with shared-responsibility and compliance fluency, Ubuntu 24.04 LTS administration, systemd services with auto-recovery, zero-trust ingress (Cloudflare Tunnel — no public IPs, no inbound ports), reproducible rollback-safe deployments, observability (DataDog, journald).

Enterprise Platforms & Integration: Freshservice ITSM (API integration & AI service intake), DataDog, VMware vSphere, Nutanix, Cohesity, Zerto, Tanium, Active Directory SAML/SSO for on-prem enterprise deployment, Windows 11 Enterprise + WSL2, enterprise egress allowlisting, air-gapped / firewalled single-outbound-dependency topologies.

Security & Compliance: SOC 2 Type II control categories, NIST 800-53 control families, HIPAA-ready data architectures (no-PHI development environments, customer-firewalled deployment, immutable audit trails), BAA-ready deployment models, zero-trust design, least privilege, defense-in-depth, secrets management separated from deploy artifacts.

Frontend & Design: TypeScript, React, responsive HTML/CSS, PDF.js integration with scale-factor citation highlighting, compliance-critical UX (click-view-initial verification workflows), 10+ years Adobe Creative Suite (Photoshop, Illustrator, Premiere Pro).

EXPERIENCE

Consulting Engineer — AI & IT Operations

Jun 2026 - Present

Bingo Consulting LLC · Client: national third-party benefits administrator (confidential) · Remote

- Retained by a national TPA for **IT-operations modernization and AI service intake**; scoped and negotiated the master services agreement and statement of work directly with client IT leadership — milestone-gated workstreams, time-and-materials delivery.
- Delivered a **natural-language AI service-intake agent for Freshservice ITSM** — intent routing into the service catalog, automated ticket creation, and knowledge-base retrieval — running inside the client’s environment under enterprise security policy.
- Authored the client’s **AI development-environment standard**: a provisioning and security spec for an enterprise-approved AI engineering workstation — multi-model toolchain (Claude Code, GitHub Copilot, Codex/Gemini CLIs, LiteLLM gateway, local Ollama), platform SDKs, and a full egress allowlist — adopted by client IT for enterprise rollout.
- Delivered **IT-operations observability across the client’s enterprise platform estate**: dashboards and DataDog anomaly detection spanning VMware vSphere, Nutanix, Cohesity, Zerto, and Tanium; a per-server “DNA” inventory data model; and service-availability dashboards for IT leadership.
- Operate fully forward-deployed: client-provisioned Windows 11 Enterprise + WSL2 workstation, client-managed credentials and service accounts, egress-allowlisted tooling — delivery under enterprise change control.

Founder & Principal Engineer

Apr 2026 – Present

Bingo Solutions · Greenwood, IN · bingosolutions.org

- Founded and lead an enterprise IT & AI firm with two practices: **IT systems consulting & implementation** (technology strategy & advisory, systems implementation & modernization, systems & data integration, data & analytics engineering) and the flagship **AI implementation practice** (AI strategy & readiness, custom AI & intelligent automation, document intelligence, AI governance & assurance).
- Own the technology end to end — architecture, build, infrastructure, and security posture — for client work serving insurance & benefits, healthcare & life sciences, financial services, and the regulated public sector. Architected to SOC 2 & NIST 800–53 controls; HIPAA-aligned; BAA available.
- Defined and operate the delivery model: **map the workflow → ship a working production increment within 30 days → integrate under the client’s security policies → hand over documented systems the client team owns**.
- Architected and built **Bingo Claims**, the firm’s flagship citation-backed claims-adjudication platform (see Projects), plus the on-prem deployment playbook for TPAs at 3M-document scale (Nginx + FastAPI + Celery + PostgreSQL + Redis + MinIO, Active Directory SSO, single outbound dependency for LLM inference).

Valet Captain (promoted from Valet Driver)

Jan 2021 – Present

Conrad Indianapolis (Hilton) · prior: The Columbia Club · Indianapolis, IN

- Promoted to Captain (Oct 2022): lead staff training, performance evaluation, and shift operations for a luxury-hotel valet team; authored SOPs for cash handling, vehicle tracking, and incident resolution.
- 5+ years of continuous full-time hospitality work in parallel with founding and shipping Bingo Solutions.

SELECTED PROJECTS

Bingo Claims — AI Claims-Adjudication Platform (Flagship)

2026

bingosolutions.org/claims · Python · FastAPI · Claude Opus 4.6 · PostgreSQL · PyMuPDF · Redis

- End-to-end LLM platform: ingests health-insurance Summary Plan Description (SPD) PDFs, constructs a queryable **knowledge graph**, and assists human claims processors with citation-backed Q&A and a deterministic **11-stage adjudication pipeline**.
- Engineered a **tool-using agent** with 12 custom graph-exploration tools (section search, entity lookup, link traversal, batch search), bounded at 6 rounds / 20 tool calls for predictable production cost and latency.
- Chose knowledge-graph + BM25 retrieval over vector embeddings: structured entity extraction (currency, percentages, day counts, tiers, cost-share splits) plus cross-reference link detection yields **human-verifiable, offline-readable citations**.
- Built a **compliance-grade verification loop**: every decision carries a 0–100 confidence score; cases under 95 route to human review; processors must click, view, and initial each cited plan section before advancing — a complete, signed audit trail.
- Running scale: 1,368 plan sections, 2,762 graph links, 5,947 structured entities across 6 real SPDs; architected for **3M+ SPDs (684M rows, 3.3 TB)** via PostgreSQL partitioning and a Redis agent-response cache (70–85% design hit rate). Live public demo on the Bingo cluster.

Bingo Production Infrastructure — Private Compute Cluster

2026

Ubuntu 24.04 LTS · systemd · Cloudflare Tunnel (Zero Trust) · GPU inference

- Designed, built, and operate the private production infrastructure behind Bingo Solutions’ public site, live product demo, and document-AI pipelines: an application/API node, a GPU inference node, and a supporting-services node.
- Zero-trust ingress** via Cloudflare Tunnel hostname- and path-based routing — no public IPs, no inbound ports; systemd auto-recovery keeps services up unattended; secrets managed separately from deploy artifacts; single-command rollback.
- Document-AI pipeline** (powers Bingo Claims): PyMuPDF extraction with header detection → pdfplumber tables → hierarchical chunking → Claude-driven entity and cross-reference extraction → normalized schema persistence (~45 s/doc single-core; Celery + Redis parallel design).

SyllabAI — Syllabus Parser & Assignment Planner

LLM document parsing · structured extraction · web app

- Parses a course syllabus into a structured plan of every assignment, reading, exam, and milestone; designed the extraction schema and LLM prompting pipeline; validated on a full semester of real coursework.

EDUCATION

Bachelor of Science, Information Systems — University of Indianapolis