

Eslam Hamed

Technical Lead @ AI Solutions Architect — production agentic AI, RAG systems, and cloud-native platforms on .NET and Azure.

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10+	6+	100K+	7-10	14d
YEARS ENGINEERING	YEARS ON AZURE	MONTHLY SESSIONS (LEGACY NLP)	ENTERPRISE CLIENTS ON AUTO-RAG	SOLO SAAS BUILD

§ 01 · SUMMARY

Technical Lead and AI Solutions Architect with **10+ years of software engineering** experience — primary backend on C# / .NET since 2016, with **6+ years architecting cloud-native AI platforms on Microsoft Azure**. Hands-on architect who has shipped production AI to enterprise customers including Gulf-region government ministries; formally managed a 5-person cross-functional team during a startup growth phase; and ships full-stack products solo. Recent focus: production agentic AI, RAG systems at scale, LLMOps, and integrating modern AI tools deeply into engineering workflows.

§ 02

Experience

06/2026 →
PRESENT
REMOTE

Freelance AI Engineer @ Solutions Architect

Independent Contract • Saudi Digital-Services Company

- Architected and solo-built an **AI data analyst that executives can trust with real numbers** - ask a business question in plain language, get an answer where every figure carries a click-to-verify receipt. The design trick: **the model never calculates anything**. It decides what to ask, a deterministic engine computes the result, and any claim missing a valid receipt is rejected automatically. With no raw-SQL escape hatch anywhere in the system, a fabricated number isn't caught after the fact - it can't be produced.
- The entire engineering function, one person** - architecture, build, test, deploy, and the product roadmap the client planned from. Python/FastAPI engine, React/TypeScript UI, **PostgreSQL 16 row-level security** deciding who may see which rows, an **MCP tool gateway (IBM ContextForge)**, and **LangGraph** routing every turn. Held to team discipline throughout: **387 pull requests**, each reviewed and CI-gated before merge, over 269 test files running against a real PostgreSQL and 94 recorded architecture decisions.
- Built **Arabic-native analytics** - Hijri calendar, Arabic business vocabulary, and a detector for a failure most systems never notice: when a business term carries two legitimate readings, it answers the likely one and offers the alternative with its own number, instead of quietly picking one and being confidently wrong.
- Built **Data Invoker**, the synthetic-data engine behind the demo - it invents a coherent customer, derives how that person behaves from who they are, then simulates their orders, so the data holds patterns worth discovering instead of noise. Because the persona causes every row, it ships a **ground-truth answer key** with planted signals and deliberate decoys - turning demo data into a benchmark that grades whether an AI analyst found the real insight, resisted the tempting false one, and didn't overclaim cause.
- Designed the **AI-assisted engineering methodology** the project runs on and open-sourced it as **agentic-methodology** - a human owns direction, two independent models argue the judgment calls, and the tests and CI own correctness, on the explicit principle that **model-vs-**

model agreement is necessary but never sufficient. Per-task risk tiers decide how much review each change has to earn.

08/2022 →

PRESENT

CAIRO ·

REMOTE

Technical Lead & AI Solutions Architect

DXWand • Enterprise AI Platforms

TECH LEAD 2021-23 · ARCHITECT & HANDS-ON AI ENGINEER THROUGHOUT

- Managed a **5-person cross-functional team** (backend, frontend, QA, product owner) from **2021 to 2023** as formal tech lead — performance reviews, hiring, 1:1s, mentorship; transitioned to broader hands-on architect/IC scope thereafter.
- Owned **production release engineering** for a multi-service platform - releases ship in gated waves where UAT runs the **identical image artifacts, verified by digest** rather than rebuilt lookalikes, and nothing promotes until post-deploy assertions pass and a soak holds against baseline error rate. Waves ship rollback-free, including unattended overnight runs.
- Brought **35 Azure DevOps projects and ~224 repositories** under one governance standard - audited branch policies estate-wide, then executed the unification: mandatory review gates on tier-one repos, protected tags, a hardened deploy-render gate, break-glass access, and a **scheduled drift audit** so the controls cannot quietly erode. Put the overhaul through an independent security review and cleared every blocking finding.
- Built the **operational system of record** for platform delivery - the estate map, architecture, runbooks and open risks in version control rather than chat history, under a standing rule that any operational claim is verified live before it is acted on. Made onboarding **provable rather than aspirational**: 35 capability checks, each a read-only command that demonstrates you actually hold the access, behind one runnable checker.
- Ran the **model economics** for the agent platform - found the orchestrator model was **75% of workflow cost**, then proved the cheaper option wasn't the worse one with a frozen-suite comparison at 95% confidence: **73% lower cost per conversation, no measurable quality loss**, rolled out across 840 agents with a guarded apply and one-command rollback.
- Architected and solo-built the MVP of **Auto-RAG**, an automated retrieval-augmented platform that shipped to production for **7-10 enterprise customers including Gulf-region government ministries**; later contributed to the production Python rebuild — LangChain/LlamaIndex orchestration, Weaviate and Azure AI Search vector retrieval, automated experimentation across retrieval strategies and prompt templates.
- Built **MerlinX**, DXWand's flagship agentic conversational AI SaaS, in production with ~10 active customers — built on top of Auto-RAG with an agentic framework supporting tool calling and multi-step reasoning. Owned full-stack delivery across **.NET backend, Svelte/TypeScript frontend, Python AI layer**, and Meta channel integrations (WhatsApp, Instagram, Facebook).
- Built an **AI-powered RFP analysis system** that extracts scoring models from RFPs and evaluates vendor proposals against those models — replacing the client's manual proposal review with **80% better comparison accuracy**, validated by the client in production. Layered guardrails, hallucination mitigation, data privacy controls, and human-in-the-loop review.
- Led delivery of **Cogent (legacy)**, an Arabic-dialect NLP chatbot SaaS handling **100K+ monthly sessions at 91% intent-classification accuracy** across multiple enterprise deployments; product retired as the company moved to LLM-based architectures.

03/2019 →

08/2022

CAIRO ·

REMOTE

Senior Software Engineer · AI Platforms Engineer

DXWand • AI Platforms

- Delivered the **real-time speech-to-text portal with speaker identification** for the **Egyptian Ministry of Justice** court system — selected by the Minister over competitors; deployed to several dozen courtrooms in production.
- Delivered the **semantic legislation search platform** for the **Egyptian Cabinet IDSC** as **prime sole vendor** — owned 75%+ of technical work plus the full service-delivery role from pre-sale through handoff (codebase sold to client).

07/2017 →
03/2019

CAIRO ·
HYBRID

Software Engineer

Vezeeta • MENA Health-Tech

- Migrated core production services from legacy **.NET** to **.NET Core** and introduced **GraphQL APIs** across owned services – improving API flexibility, maintainability and developer velocity on a platform handling **thousands of daily transactions** across booking, payments and referrals, with financial and partner integrations (**Fawry, Payfort, Salesforce**) and asynchronous messaging on **RabbitMQ** and **AWS SQS**.

10/2016 →
07/2017

CAIRO · ON-
SITE

Software Developer

EgID • Egyptian Exchange Subsidiary

- Developed the **online trading dashboard for the Egyptian Exchange (EGX)**, Egypt's national stock exchange — live market data, order execution, and portfolio insights.

§ 03

Featured Project

SOLO BUILD - 14 CALENDAR DAYS - LIVE PRODUCT WITH PAID TIERS

Career *Rafeeq*

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- Shipped end-to-end production AI SaaS solo in **14 calendar days** — backend, frontend, Chrome extension, payments, deploy infra. ~75K LOC hand-authored production code; 53 integration test files gating every deploy.
- Designed an **8-phase deterministic LLM orchestration pipeline** with parallel fan-out and confidence-gated refinement loop, plus a multi-run statistical eval harness gating every prompt change.

§ 04

Technical Skills

ENGINEERING LEADERSHIP

Cross-functional team management (formal, 5 people), Mentorship, Hiring, Code & Architecture Review, Engineering Standards, Stakeholder Communication, Service Delivery

AI, LLM & RETRIEVAL

Generative AI, LLM Applications, Production RAG, Agentic Systems (Multi-Agent, Tool Calling, Reasoning Chains), **LLM Orchestration** (LangChain, **LangGraph**, LlamaIndex), **MCP** (Model Context Protocol, IBM ContextForge), **Workflow Engines** (Temporal, n8n) · **Retrieval** — Vector Search (**Weaviate, Azure AI Search**), Graph DBs (**Neo4j**), RAG Architecture · Prompt Engineering, Cost Optimization, Arabic NLP

AI OPERATIONS & SAFETY

LLMOps (prompt/model versioning, monitoring, CI/CD for AI), Evaluation Harnesses & Pipelines, Guardrails, Hallucination Mitigation, **Verifiable-Evidence Architectures, Row-Level Security & Data Entitlements**, Audit Trails, Human-in-the-Loop Review · **Observability** — Application Insights, Prometheus, Elasticsearch

BACKEND, FRONTEND, DATA

Backend — C#, .NET, .NET Core, ASP.NET Core, Python (FastAPI), Node.js, REST, GraphQL · Microservices, Event-Driven, Serverless · **Frontend** — TypeScript (strict), React, Svelte · **Data** — SQL Server, PostgreSQL, MongoDB, Redis, Elasticsearch, Cosmos DB

CLOUD, DEVOPS & SECURITY

Azure (6+ yrs) — App Services, AKS, Functions, API Management, Service Bus, Azure SQL, Key Vault, Entra ID · **AWS** — EC2, Lambda, RDS, S3, SQS, SNS, IAM, CloudWatch · **DevOps** — Docker, Azure DevOps, CI/CD, Git · **Messaging** — Apache Kafka, RabbitMQ · **AI-Assisted Dev** — Claude Code, Codex, GitHub Copilot · **Security** — OAuth 2.0, JWT, RBAC

EDUCATION B.Sc. Computer Science · Helwan University · 2012–2016 · Agile Software Development (SECC) · Product Management (280 Group)

LANGUAGES Arabic — Native or Bilingual · English — Full Professional Proficiency