AHMED SHALTOOT

Engineering Manager — AI-Powered Healthcare Platforms

Riyadh, Saudi Arabia • EG: +201091585331 | SA: +966 57 944 3254 • itshaltoot96@gmail.com

linkedin.com/in/ahmed-shaltoot • shaltoot.cloud • shaltoot.cloud/blog

PROFESSIONAL SUMMARY

Engineering manager with 10+ years in software and 8 years specialized in healthcare technology — EMR, HIS, RCM, insurance, and intelligent claims management. Promoted three times in five years at TachyHealth (Senior Engineer → Lead → Engineering Manager), now leading the engineering, DevOps, and AI teams behind a multi-tenant SaaS claims platform serving payers and providers across Saudi Arabia, the UAE, and the US. Combines hands-on .NET (ASP.NET Core, RESTful APIs), Python, and PostgreSQL depth with a record of zero-downtime migrations, production LLM deployment for clinical workflows, and NPHIES payer certification.

SELECTED ACHIEVEMENTS

- Architected and scaled a real-time claims and pre-authorization processing engine for an insurance payer, handling 120M+ claims per month.
- Led a zero-downtime live migration of the flagship claims product from Azure CosmosDB + Elasticsearch to PostgreSQL as single source of truth — a terabyte-scale dataset of 50M+ records — with zero data loss and 100% reconciliation.
- Took LLM-based ICD-10 coding and clinical documentation from model benchmarking to production, including GPU infrastructure capacity planning on Oracle Cloud.
- Achieved NPHIES vendor certification for Saudi payer integrations, unlocking the platform's entry into the KSA market.
- Currently lead a 20+ person engineering organization across engineering, DevOps, and AI, spanning three cloud providers in regulated environments.

CORE SKILLS

Leadership: Strategic technology leadership · Building & mentoring engineering teams · Technical roadmaps · Vendor evaluation & buy-vs-build · Stakeholder alignment · Problem-solving & production troubleshooting

Architecture: Solution Architecture · Distributed systems · Microservices · Event-driven architecture · OOP, Design Patterns & SOLID principles

Backend: .NET / .NET Core · ASP.NET Core · Entity Framework Core · C# · Python · gRPC · RabbitMQ · REST APIs

Frontend: Angular · TypeScript · JavaScript · React · HTML/CSS

Healthcare & Compliance: NPHIES (FHIR R4) · Payer/provider integrations · ICD-10 · Claims adjudication & RCM · HIPAA · PDPL · High availability in regulated environments

Data: PostgreSQL (large-scale performance tuning) · SQL Server (MSSQL) · Database design · Query & performance optimization · MongoDB · Redis · Elasticsearch · Azure CosmosDB

Cloud & DevOps: Kubernetes · Docker · Argo CD & Argo Rollouts · CI/CD · Azure DevOps · Git · Azure · Oracle Cloud · GCP · AWS

AI/ML: LLM evaluation & production deployment for clinical workflows · Agentic AI · GPU capacity planning · AI-assisted engineering quality (code review, test automation)

PROFESSIONAL EXPERIENCE

TACHYHEALTH | UAE → Riyadh, Saudi Arabia — **Sep 2020 – Present**

Multi-tenant SaaS claims processing and AI platform serving payers and providers in Saudi Arabia, the UAE, and the US.

Engineering Manager — **Apr 2025 – Present**

- Lead a 20+ person organization across engineering, DevOps, and AI; hire and mentor engineering leads and own delivery performance for a platform processing millions of claims monthly.
- Own architecture, technical roadmap, and vendor decisions across Azure, GCP, and Oracle Cloud, sustaining high availability while meeting NPHIES, HIPAA, and PDPL obligations.
- Direct evaluation and production deployment of large language models for ICD-10 coding and clinical documentation — model benchmarking, guardrails, and GPU infrastructure sizing on Oracle Cloud.
- Drive engineering modernization (AI-assisted code review, containerized test infrastructure, progressive delivery), materially improving deployment frequency and change-failure rate.

Lead Software Engineer — **Jan 2022 – Mar 2025**

- Led the live migration of the flagship claims product — 50M+ records at terabyte scale — from Azure CosmosDB + Elasticsearch to PostgreSQL as the single source of truth, with zero downtime, zero data loss, and full reconciliation.

- Resolved major production PostgreSQL incidents (CPU saturation, write amplification, query plan regressions) through indexing strategy, query rewrites, restoring stable performance under full production load.
- Led NPHIES vendor certification for Saudi payer integrations; owned system design and the full software development lifecycle (SDLC) in coordination with ML and QA teams.
- Built an AI/ML-powered code review and testing quality program (CodeRabbit, Testcontainers, Playwright, Argo Rollouts) adopted across the engineering team.

Senior Software Engineer **Sep 2020 – Jan 2022**

- Designed and shipped .NET services integrating ML models into claims-processing workflows, automating manual adjudication and review steps.
- Progressed to Lead within 16 months on the strength of platform reliability and delivery work.

EARLIER EXPERIENCE

Founder, Core System (AI/ML side venture) — Egypt 2021 – 2024

Founded an AI/ML startup alongside my full-time role, supporting Egypt's digital-transformation programs; owned product, delivery, and customer relationships end to end before winding down in 2024.

Freelance .NET Full-Stack Developer — Remote 2017 – 2020

Delivered 30+ projects, predominantly healthcare with notable fintech work — monolithic, microservices, and serverless architectures on .NET Core, Azure Functions, AWS Lambda, and Angular/TypeScript.

Full-Stack .NET Developer, UISCOM — Damietta, Egypt 2019 – 2020

Built and maintained enterprise ERP applications across the full development lifecycle.

.NET Developer, MolTaqa — Dakahlia, Egypt 2018 – 2019

Developed scalable web applications on the .NET framework with cross-functional teams.

EDUCATION

Professional Diploma, Software Engineering — Information Technology Institute (ITI), Egypt 2018

Selective 9-month intensive post-graduate program.

B.Sc. Computer Software Engineering — Damietta University, Egypt 2014 – 2017

PERSONAL DETAILS

Date of Birth: 18 March 1996 **Languages:** Arabic (native) · English (full professional proficiency)

INTERESTS

Technical writing & cloud home-lab experiments (shaltoot.cloud/blog) · Reading — technology & business · Football & fitness · Travel