

MEHDI KHODER

Sole Trader, Birmingham, UK

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PROFESSIONAL SUMMARY

Solutions Architect and AI Consultant with over 20+ years' experience delivering enterprise platforms across cloud, data, and AI systems. Recently led the transformation of experimental GenAI prototypes into scalable, auditable validation platforms in a regulated pharma environment, improving model accuracy from 45% to 76% through evaluation pipelines, RAG architecture, and data platform redesign. Specialised in bridging business requirements and AI system design, combining hands-on engineering with architectural leadership across backend systems, data pipelines, and cloud platforms.

CORE EXPERTISE

AI Systems & GenAI

- LLM Integration (OpenAI, Vision models), Prompt/Context Engineering.
- RAG Pipelines (Langchain/Langgraph, LlamaIndex), Vector Databases (ChromaDB, Snowflake), Embeddings.
- Evaluation Pipelines (Golden Set), Benchmarking (Eval Summary, TP/FN/FP, Recall), Accuracy Optimisation, Structured I/O (JSON Schema), Validation & Scoring Systems (F1 Scoring).
- AI Automation: n8n.

Cloud & Data Platforms

- Azure, AWS, GCP
- Snowflake (Data & Vector Schema Design)
- ETL Pipelines, Data Versioning, Data Lineage

Architecture & Engineering

- Microservices, Event-Driven Systems
- PHP, Python, Java, C#
- API Design, Backend Architecture

Delivery & DevOps

- CI/CD (Azure DevOps, Jenkins, GitHub Actions)
- Observability, Logging, Monitoring
- Agile Delivery (Scrum), SDLC Optimisation, BDD/TDD

KEY PROJECTS

- | | |
|---|-------------|
| • RAG LLM-Powered Assistant https://github.com/mehdimahmoud/llm-rag-chroma-demo | 2025 |
| • Azure Infrastructure Automation https://github.com/mehdimahmoud/azure-storage-arm-bicep-demo | 2025 |
| • N8N Workflow Automation https://github.com/mehdimahmoud/n8n-docker | 2025 |
| • Event-Driven Agentic Wkflows https://github.com/mehdimahmoud/event-driven-agentic-document-workflows | 2025 |

CERTIFICATIONS & AI TRAINING

- **LeadWithAIAgents Hackathon:** Hackathon 2025 | https://badgr.com/public/assertions/ISQfzgKNTJG7TnLp_xih5Q
- **LangChain:** DeepLearning.AI | <https://learn.deeplearning.ai/accomplish-ments/708c30f3-cc6e-4b10-8d56-bb59ceb45e8f>
- **Event-Driven Agentic Workflows:** DeepLearning.AI | <https://learn.deeplearning.ai/accomplish-ments/b4b31db7-63fe-49d2-8aa5-69548486fc10>
- **AI Showcase:** Marktechpost AI Media Inc | <https://credsverse.com/credentials/0068315e-62bd-4d65-b848-9e4b9e067308>

EXPERIENCE

Self-employment/Mehdi K Services Consulting

Apr 2025 – Present

Architect and AI Solutions Consultant

Birmingham, UK

- Design and deliver AI-driven systems for automation, validation, and decision support.
- Develop RAG-based AI systems for knowledge retrieval and structured validation.
- Build LLM-powered workflows and agentic systems to automate business processes.
- Design evaluation and validation frameworks for measurable AI performance.
- Deliver modular AI solutions enabling rapid deployment for agencies and small businesses.

Syneos Health

Feb – May 2026

AI Solutions Consultant (client contract via self-employment/remote)

London, UK

Delivered and scaled enterprise GenAI validation systems in a regulated pharma environment, transforming low-accuracy prototypes into production-oriented, auditable, and scalable AI platforms.

Eris – Editorial Review & Evaluation Platform

- Transformed a PoC LLM review system (~40% accuracy) into a structured evaluation platform reaching ~65% accuracy.
- Designed and implemented the first formal evaluation pipeline, introducing structured scoring, validation logic, and reproducible comparison workflows.
- Established structured output contracts (JSON schema) with validation, retry/repair logic, and rule-based categorisation.
- Enabled data-driven observability and analytics layer (run statistics, comparison metrics, token usage, cost visibility).

- Enabled multi-tenancy and concurrent user execution, supporting scalable team usage.
- Prepared migration from Render to Azure, aligning infrastructure with enterprise deployment standards.

Greenlight – Reference Validation & RAG Platform

- Scaled a notebook prototype (~45% accuracy) into a reference validation platform achieving ~76% accuracy compared to human validation benchmarks.
- Designed and built Reference Validation system (UI + Backend) enabling citation-level verification and auditable outputs.
- Engineered a scalable RAG pipeline supporting validation across diverse pharma documents from multiple reference libraries.
- Implemented document validation workflow: parsing, statement extraction, evidence retrieval, and verdict scoring.
- Re-architected ETL ingestion pipelines (Repacks) with versioning, manifest-driven processing, and improved traceability.
- Reviewed, optimised Snowflake vector database schema, aligning embedding storage and retrieval with GenAI requirements.
- Enabled reviewer efficiency gains by highlighting unsupported or weakly evidenced content for targeted validation.

ParentPay/ESS

Dec 2023 - Mar 2025

Software Development Manager

Birmingham, UK

Led engineering teams supporting MIS and LMS product lines across UK and India operations.

- Scaled distributed engineering teams from 3 to 8 members, delivering roadmap objectives across Cedar and LMC product lines.
- Enhanced Agile SDLC processes, reducing delivery cycles from 3 months to 1 week and onboarding time by 50%.
- Initiated DB Docker containerisation, AI-based PHP code review for improving developer experience and delivery process efficiency.
- Managed Azure Cloud Infrastructure (DevOps and Azure Portal) on demand for my Dev teams.
- Fostered a collaborative team culture with mentoring, knowledge sharing, and cross-functional coordination.

Capita/ESS

Jul 2018 - Dec 2023

Solutions Technical Architect

Birmingham, UK

Led cloud migration and infrastructure modernisation initiatives, delivering enterprise-scale SaaS technical solutions across multiple platforms.

- Unified cloud-native workflows to migrate Jenkins to Azure DevOps CI/CD, Bitbucket/SVN to Git, and Sybase to Azure.
- Managed high-risk Virtuoso cluster migration (1TB data), achieving seamless v6 to v8 upgrade through comprehensive testing
- Designed secure password management system for SaaS applications, ensuring backend architecture and data model integrity
- Blueprinted cloud-native EDI gateway using Azure services and Apache Camel, enabling RT cross-networks data exchange.

Spotlight Award recipient for "Trust, Brave and Responsible" excellence for Virtuoso migration project.

Capita/Libraries

Mar 2017 - Dec 2018

Senior Java Backend Developer

Birmingham, UK

Enhanced enterprise-scale backend solutions for academic and council LMS platforms, delivering high-performance SaaS applications.

- Delivered RESTful APIs using Java, Spring, and Hibernate for LMS applications, improving system performance by 10%.
- Led mentoring and functional collaboration initiatives, increasing project completion rates by 20% through knowledge sharing.

Resharmonics

Jul 2016 - Oct 2016

Java/Mobile Developer

Birmingham, UK

- Developed mobile-responsive booking portal for Lapland UK using Spring Boot, Thymeleaf, and Bootstrap frameworks

WiDisplay (Co-founder)

Oct 2013 - Jun 2016

Android Developer

Grenoble, France

- Built Yapa Photo mobile application for official photo ID capture with Google Play Store integration
- Implemented Parse backend services and API integrations for mobile-to-cloud data synchronization

International Experience

2004 - 2013

Full Stack Developer (JS/CSS/Java)

Dubai, France, HongKong

- Delivered enterprise Java solutions across **banking, insurance and Enterprise** sectors for major clients including BNP Paribas, Credit Agricole, Zurich Insurance and Veolia Environment.
- Developed SOAP web services and cloud architecture integrations, supporting critical financial system operations.

EDUCATION

Grenoble Institute of Technology -

2002 - 2003

Master 2 Research Graduate

Grenoble, France

- Achievements: 3D Simulation in Computer Sciences, Electrical Engineering Research

Polytech' Tours

1999 - 2003

Meng

Tours, France

- Achievements: Computer Sciences, Electronic and Electrical Engineering, Energy Systems

INSA Val-de-Loire

1998 - 1999

License Graduate

Blois, France

- Achievements: Integrated Preparatory School in Computer Sciences, Electronic and Mechanical Engineering

University of Sciences

1996 - 1998

License Graduate (DEUG A)

Tours, France

- Achievements: Computer Sciences, Mathematics, Physics, Chemistry