

MEHDI KHODER

Birmingham, UK

<https://www.linkedin.com/in/mehdi-khoder> | mehdi.mahmoud@gmail.com | <https://mehdi-khoder.com>

PROFESSIONAL SUMMARY

Delivery-driven and cloud-native Software Architect Engineer adept at leading distributed Agile teams to modernise platforms, scale delivery, and streamline development workflows. I leverage a strong foundation in Cloud ecosystems and DevOps transformation, including practical experience in integrating large language models (LLMs), RAG and vector search. I'm passionate about solving real problems by applying strong technical direction and fostering reliable, AI-enhanced delivery.

KEY SKILLS MATRIX

- **AI & ML:** Azure, Google AI Studio, GCP ML studio, Prompting Engineering, RAG, Agentic workflow, GenAI
- **Cloud Platforms & Infra:** GCP, AWS, MS Azure (DevOps, RM, SQL, RBAC, VM, Containers), Docker, K8s
- **DevOps & Automation:** Azure DevOps, Jenkins CI/CD, Git, SVN, Bitbucket, Custom daemon agents, Prometheus, Grafana
- **Methodologies & Concepts:** Agile, Scrum, Kanban, CI/CD, SDLC optimisation, BDD, TDD, Design Patterns, Architectural Patterns (SOA, Microservices, Event-driven)
- **Backend Technologies:** Python, Go, Java, Spring Boot (Core, Security), Hibernate, Apache Camel
- **APIs & DB:** .NET Core, RESTful APIs, SOAP, OpenLink Virtuoso, RDF, Sybase, SQL Server, Azure SQL
- **Frontend & Web:** ReactJS, AngularJS, Thymeleaf, HTML5, CSS3, Bootstrap, JQuery, Typescript
- **Tools & Environments:** IntelliJ IDEA, Eclipse, Android Studio, VS Code, Cursor, Windsurf, Atlassian Jira, Confluence, Bitbucket, Slack

KEY PROJECTS

- RAG LLM-Powered Assistant** | <https://github.com/mehdimahmoud/llm-rag-chroma-demo> **2025**
• Built a Retrieval-Augmented Generation (RAG) assistant combining Langchain, HuggingFace, ChromaDB for vector search with OpenAI for document-based responses.
- Azure Infrastructure Automation** | <https://github.com/mehdimahmoud/azure-storage-arm-bicep-demo> **2025**
• Created a deployment framework using Azure ARM and BICEP templates for provisioning Azure resources, automated with GitHub Actions.
- N8N Workflow Automation** | <https://github.com/mehdimahmoud/n8n-docker> **2025**
• Built a Dockerised 'n8n' platform integrating LLM agents to enhance backend automation workflows.
- Event-Driven Agentic Workflows** | <https://github.com/mehdimahmoud/event-driven-agentic-document-workflows> **2025**
• Implemented an agentic document automation pipeline using Python 3.9.6, LlamaIndex, RAG Search Agent, OpenAI, LLM and Llama VectorStoreIndex embeddings models, and Gradio interface.
- OpenAI Assistant Integration** **2024**
• Prototyped an OpenAI-based assistant for internal DevOps code review on legacy PHP components using Azure AI Studio and OpenAI LLM models.

CERTIFICATIONS & AI TRAINING

- **LeadWithAI Agents Hackathon:** Hackathon 2025 | https://badgr.com/public/assertions/ISQfzgKNTJG7TnLp_xih5Q
- **LangChain for LLM Application Development:** DeepLearning.AI | <https://learn.deeplearning.ai/accomplishments/708c30f3-cc6e-4b10-8d56-bb59ceb45e8f>
- **Event-Driven Agentic Workflows with LLMs:** DeepLearning.AI | <https://learn.deeplearning.ai/accomplishments/b4b31db7-63fe-49d2-8aa5-69548486fc10>
- **AI Automation Showcase – minCON Credential (Credsverse):** Marktechpost AI Media Inc | <https://credsverse.com/credentials/0068315e-62bd-4d65-b848-9e4b9e067308>

EXPERIENCE

Freelance/Self-employment

Apr 2025 - Present

AI Engineer | Solutions Architect

Birmingham, UK

Freelance technical strategist specialising in AI-powered solutions for business automation and efficiency. Building modular AI-driven components and services for solopreneurs, digital agencies, and innovative businesses.

- Develop intelligent automation workflows using n8n and AI agents, reducing manual workload by streamlining operations
- Create generative AI solutions for personalisation including CV matching and branded content generation at scale
- Build RAG pipelines for knowledge-rich domains, enhancing information retrieval and decision-making processes
- Design reusable AI templates for agency enablement, achieving faster deployment and increased scalability

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.

- Led Jenkins to Azure DevOps CI/CD migration, Bitbucket/SVN to Git transition, and Sybase to Azure migration, enabling unified cloud-native workflows
- Managed high-risk Virtuoso cluster migration (1TB RDF 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 real-time 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 cross-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 YapaPhoto 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

Various Roles

Dubai, France, HongKong

- Delivered enterprise Java solutions across banking and insurance sectors for major clients including Zurich Insurance and BNP Paribas
- 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 Energy Systems

INSA Val-de-Loire

1998 - 1999

License Graduate

Blois, France

- **Achievements:** Integrated Preparatory School

University of Sciences

1996 - 1998

License Graduate (DEUG A)

Tours, France

- **Achievements:** Computer Sciences, Mathematics, Physics, Chemistry