

Muhammad U.

Architect/Lead Cloud and AI Solutions Architect

SUMMARY

- 10+ years in cloud-native architecture, AI platform delivery, and enterprise governance across multi-cloud environments (AWS, Azure, Google Cloud).
- Led enterprise architecture practice, delivering 8+ AI systems, achieving CMMI Level 2 maturity, and co-authoring cybersecurity aligned to ISO 27001 and NIST.
- Skilled in Python, C#, Java, JavaScript/TypeScript, microservices, containerization (Docker, Kubernetes), serverless, and IaC (Terraform).
- Leadership managing 40+ engineers, driving \$4M+ revenue growth, and mentoring across distributed teams.
- Creator of AI governance frameworks, AI-powered automation, and multi-LLM orchestration platforms; active in thought leadership and industry innovation.

TECHNICAL SKILLS

Main Technical Skills	AWS, Azure, Agentic AI, Python
AI Tools & Assistants	Claude, Gemini, GitHub Copilot
Programming Languages	C#, Java, JavaScript, Python
AI & Machine Learning	AI, AI/ML, ChatBot, Claude, ElevenLabs, GenAI, LangChain, n8n, TensorFlow
Java Libraries and Tools	Apache Velocity, JSON
.NET Platform	ASP.NET, ASP.NET MVC, .NET
Python Frameworks	FastAPI
JavaScript Frameworks	Next.js, Node.js, React
Salesforce Ecosystem	Salesforce
Python Libraries and Tools	TensorFlow
Security	ISO 27001
Data Analysis and Visualization Technologies	Power BI
Databases & Management Systems / ORM	AWS DynamoDB, Microsoft SQL Server, MongoDB, MySQL, Oracle Database, PostgreSQL, Redis, Supabase
UI Frameworks, Libraries, and Browsers	SAML
	AWS, Azure, CloudFlare, GCP, OCI, Oracle OCI, Serverless



Cloud Platforms, Services & Computing	
Amazon Web Services	AWS Cloudformation, AWS CloudTrail, AWS DynamoDB
Azure Cloud Services	Azure Blob Storage, Azure Blueprints, Azure DevOps, Azure DevOps pipelines, Azure log analytics
Industry Domain Experience	SAAS
Methodologies, Paradigms and Patterns	Agile, BPMN, ITIL, Scrum, SOAP, UML
SDK / API and Integrations	API, Api Gateway, FastAPI, GraphQL, OAuth, OData, RESTful API
Version Control	BitBucket, Git, Github Actions
Deployment, CI/CD & Administration	CI/CD, GitLab CI, Jenkins
Virtualization, Containers and Orchestration	Docker, Kubernetes, Terraform
Collaboration, Task & Issue Tracking	Jira
Platforms	Microsoft, Okta, Power Automate, Salesforce, SharePoint
UI/UX/Wireframing	Microsoft Visio, UI/UX
QA, Test Automation, Security	Mock
Third Party Tools / IDEs / SDK / Services	Office 365
Logging and Monitoring	Sentry
File Systems, Storage	XML
Other Technical Skills	BIDS, C4 Model, Claude Code, Conversational AI, CSM, Erwin, Flash, IBM Watson, LeanIX, POS, TOGAF 9, TTS

WORK EXPERIENCE

Lead Architect, Tawzio - Agentic AI Career Platform

Duration: Feb. 2026 - Current

Summary: Building and maintaining a full-stack AI-powered career platform integrating multiple large language models for interview content generation, job scoring, and voice-based mock interviews with advanced cost governance and security.

Responsibilities:

- Designed and implemented multi-LLM orchestration layer integrating Claude Sonnet, Gemini 2.5 Flash, and ElevenLabs TTS.



- Developed full-stack platform using Next.js, React, Python FastAPI, and Supabase PostgreSQL.
- Implemented CI/CD pipelines with GitOps workflow and environment-based configuration.
- Ensured production cost governance with cache key architecture and circuit breaker patterns.

Technologies: Next.js 14, React, Python FastAPI, Supabase PostgreSQL, Cloudflare Turnstile, Sentry, GitOps, Multi-LLM orchestration, Claude Sonnet, Gemini 2.5 Flash, ElevenLabs TTS.

Sr. Enterprise Architecture Manager, NEOM Digital Mobility (Enterprise Architecture and AI Systems Delivery)

Duration: Oct. 2022 - Feb. 2026

Summary: Built and led an enterprise architecture practice for NEOM's USD 500B digital city programme focused on land mobility, delivering AI-powered solutions and establishing cloud-native architecture and governance frameworks across multiple business units.

Responsibilities:

- Provided technical leadership and strategic direction to 40+ engineers across multiple disciplines and locations.
- Built enterprise architecture practice from zero to CMMI Level 2 maturity, establishing governance standards and reusable architecture patterns.
- Created and enforced standards for cloud-native architecture, microservices, AI/ML implementation, DevOps automation, and security governance.
- Delivered 8 AI systems to production improving operational efficiency and customer experience.
- Architected multi-cloud infrastructure strategy spanning AWS, Azure, OCI, and Huawei Cloud.
- Managed executive stakeholder engagement and vendor partnerships with PwC, Oracle, Microsoft, and Huawei.
- Co-authored cybersecurity strategy aligned with ISO 27001, Zero Trust, and NIST standards.

Technologies: AWS, Azure, Oracle Cloud Infrastructure (OCI), Huawei Cloud, Docker, Kubernetes, Terraform, Azure DevOps, AI/ML platforms, Computer Vision, Conversational AI, GTFS data, Microservices, Event-Driven Architecture, Serverless Patterns.

Enterprise Architect, SiteCore (Application Rationalization and Cloud-Native Learning Management Solution)

Duration: May 2021 - Sep. 2022

Summary: Led a large-scale application rationalization and modernization initiative across multiple acquired businesses and architected a cloud-native Learning Management Solution for a B2B SaaS platform integrating multiple enterprise systems.

Responsibilities:

- Led assessment and rationalization of 450+ applications, eliminating redundancies and reducing costs.
- Architected cloud-native Learning Management Solution integrating Salesforce, SiteCore OrderCloud, Okta, Azure AD, and Kryterion.
- Documented enterprise-wide business capabilities and created strategic architecture blueprints and roadmaps.



- Mentored solution architects and developers, fostering high-performance culture and managing project risks.

Technologies: Cloud-native architecture, Microservices, API-first design, Salesforce, SiteCore OrderCloud, Okta, Azure AD, Azure DevOps, CI/CD.

Solutions Architect Lead, Royal Conservatory of Music (HR Onboarding API and Exam Registration System Modernization)

Duration: Jul. 2020 - Mar. 2021

Summary: Led modernization of HR onboarding workflows and exam registration system by implementing microservices architecture and Azure B2C OAuth-based Single Sign-On to improve scalability, security, and user experience.

Responsibilities:

- Led and mentored cross-functional team improving sprint velocity and reducing defects.
- Developed HR onboarding/offboarding API application using ASP.NET MVC, C#, and ODATA.
- Re-architected Exam Registration System from monolithic to microservices architecture.
- Designed and implemented Azure B2C OAuth-based Single Sign-On for enhanced security and integration.

Technologies: ASP.NET MVC, C#, ODATA, Azure DevOps CI/CD, Microservices, Azure B2C OAuth, .NET, Java.

Managing Director/Consultant, AREED IT SERVICES (Cloud-Based POS System and Digital Health & Wellness E-commerce Platform)

Duration: Sep. 2016 - Jun. 2020

Summary: Built and led a consulting practice delivering cloud architecture and digital transformation solutions including a VAT-compliant POS system and a multi-service digital health e-commerce platform across UAE markets.

Responsibilities:

- Delivered cloud architecture and infrastructure modernization driving cost savings and customer satisfaction.
- Developed technical proposals, solution architectures, and business cases winning competitive bids.
- Architected and deployed VAT-compliant cloud POS system across 100+ locations ensuring tax compliance and operational efficiency.
- Directed architectural strategy and launch of Digital Health & Wellness e-commerce platform with Agile Architecture and CI/CD pipelines.
- Defined target architecture for Social Care Case Management System with secure centralized SharePoint portal.

Technologies: Cloud architectures, Agile Architecture, CI/CD pipelines, SharePoint, POS systems, VAT compliance, Azure DevOps.



System Analyst, ADNOC Offshore (Formerly ZADCO) (Enterprise Technology Programs and Oil & Gas Mission-Critical Systems)

Duration: Sep. 2005 - Aug. 2016

Summary: Led multiple enterprise technology programs supporting offshore oil and gas operations, delivering mission-critical systems with high availability and compliance to regulatory and security standards.

Responsibilities:

- Led portfolio of 15+ technology programs managing cross-functional teams and vendor relationships.
- Ensured architectural governance and compliance with IT principles and regulatory requirements.
- Directed architecture and delivery of Well Delivery Process collaboration platform and Clinical Management System.
- Managed implementation of Laboratory Information Management System and critical Oil & Gas platforms including Pipeline Integrity, Real-Time Drilling, and Digital Oil Field solutions.
- Championed Emiratization and capacity-building initiatives.

Technologies: ASP.NET, SharePoint, Azure, Office 365, ThermoFisher Sample Manager (LIMS), Pipeline Integrity Management Systems, Real-Time Drilling Monitoring, Digital Oil Field solutions.

EDUCATION

- **Chief Digital Officer**
Massachusetts Institute of Technology (MIT), Boston, MA, USA. Focus: AI Strategies & Roadmaps, Applied Agentic AI for Organizational Transformation, Innovation & Leadership
In Progress
- **Master of Science in Software Engineering**
University of St. Thomas, St. Paul, MN, USA
2001
- **Bachelor of Science in Computer Science**
St. Cloud State University, St. Cloud, MN, USA
1996

CERTIFICATION

- **TOGAF 9 Certified**
Enterprise Architecture & Governance
- **ITIL Foundation v3**
Enterprise Architecture & Governance
- **AWS Certified Solutions Architect**
Cloud Platforms
- **Azure Cloud, Data & AI Certified**
Cloud Platforms
- **Google Cloud Digital Leader**
Cloud Platforms
- **NVIDIA AI Infrastructure & Operations**
AI & Data



- **Google Generative AI Leader Certified**
AI & Data
- **IBM Watson AI Chatbot Certified Developer**
AI & Data
- **Microsoft Power BI Data Analyst Certified**
AI & Data
- **Certified Scrum Master (CSM)**
Project & Agile Management
- **MIT Chief Digital Officer Program**
In Progress, Leadership & Strategy
- **MIT Innovation & Leadership**
Leadership & Strategy
- **MIT Applied Agentic AI for Organizational Transformation**
Leadership & Strategy
- **MIT AI Strategies & Roadmaps**
Leadership & Strategy

