MOHAMED ABBAS

Data & AI Delivery Architect | Cloud Data Platforms | Applied AI | Customer Engineering

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PROFESSIONAL SUMMARY

Data & AI architect and delivery leader with 8+ years designing and implementing enterprise data platforms, analytics systems and applied AI solutions across AWS, Amazon and Oracle. Currently delivering customer-facing Data & AI engagements for AWS in the UK, combining architecture, hands-on engineering and programme delivery from discovery through production. Strong background in cloud data platforms, distributed processing, governed analytics, event-driven systems and practical GenAI integration, with experience translating complex business and operational requirements into scalable, secure and measurable solutions.

PROFESSIONAL EXPERIENCE

Amazon Web Services (AWS) | London, UK

Nov 2026 - Present

Data & AI Delivery Architect

- Lead customer-facing Data & AI delivery engagements, translating business objectives and existing technology estates into target architectures, implementation roadmaps and production delivery plans on AWS.
- Architect modern data platforms spanning Amazon S3, AWS Glue, Lake Formation, Redshift, EMR, Athena, MWAA and event-driven services, covering ingestion, transformation, governance, orchestration, performance and operational resilience.
- Design and implement scalable batch and near-real-time pipelines using Python, PySpark, SQL, Lambda, Kinesis, SQS/SNS and Step Functions, with explicit patterns for idempotency, replay, schema evolution, data quality and failure recovery.
- Shape applied AI and GenAI workloads using Amazon Bedrock, retrieval-augmented generation and governed enterprise data, defining patterns for grounding, prompt/version management, evaluation, guardrails and integration with production applications.
- Run technical discovery sessions, architecture workshops and design reviews with customer engineering teams and senior stakeholders; convert ambiguous requirements into concrete solution designs and delivery backlogs.
- Guide migration and modernisation programmes from legacy data warehouses, databases and ETL estates to AWS-native architectures while balancing delivery risk, security, cost, performance and time-to-value.
- Establish production engineering standards covering IAM, KMS, VPC design, observability, infrastructure-as-code, CI/CD, operational readiness and Well-Architected principles.
- Work across customer teams, AWS specialists and delivery partners to resolve technical blockers, manage architecture decisions and drive solutions through implementation, testing and production adoption.

Amazon | Luxembourg

Jun 2021 - Oct 2026

Senior Business Intelligence Engineer

- Designed and delivered large-scale data and analytics solutions for Amazon's European logistics network, supporting finance, operations, capacity planning and network-performance decision making.
- Built high-volume batch and near-real-time processing pipelines using Python, PySpark, AWS Glue, Lambda, Kinesis, SQS/SNS, Aurora PostgreSQL and Amazon Redshift, improving latency, reliability and operational consumption of analytical data.
- Designed governed analytics architecture across S3, Glue, Lake Formation and Redshift, defining reusable datasets, data contracts, schema-evolution standards, access controls and shared analytical models for multiple teams.
- Developed dimensional models, historical-state pipelines and reusable semantic structures using SQL, Python and PySpark for operational and financial reporting at European scale.
- Designed and delivered an in-transit analytics solution across 40 fulfilment centres, creating the technical pattern for wider European rollout and identifying $120M in savings through improved network visibility.
- Delivered the data and decision architecture supporting a UK promise-policy programme that contributed to a 5.4 percentage-point improvement in one-day availability during Q4 2024.
- Implemented automated data-quality checks, deployment pipelines and infrastructure-as-code using AWS CDK, CloudFormation, CodePipeline and CodeBuild, improving repeatability and production controls.
- Designed security and governance controls across IAM, KMS, VPC boundaries, Redshift column-level security and CloudTrail for sensitive operational and financial datasets.

- Applied GenAI selectively to analytics workflows, including Bedrock-based narrative generation and retrieval-augmented access to governed enterprise context, with prompt versioning, guardrails and output validation.
- Partnered with finance, operations, product and engineering stakeholders to move analytical problems from discovery through implementation and adoption, prioritising reusable data products over one-off reporting solutions.

Oracle | Cairo, Egypt **Sep 2019 - May 2021**

Senior Data Architect - Cloud & Analytics | Customer-Facing Consultant

- Owned enterprise customer engagements from discovery and technical assessment through architecture, implementation and production go-live across financial services, telecom, government, energy and real estate customers in Africa and the Middle East.
- Led technical and executive workshops covering cloud adoption, analytics modernisation, data architecture, security and migration strategy; converted outcomes into solution designs, proposals, RFP responses and delivery roadmaps.
- Architected enterprise analytical platforms on Oracle Cloud Infrastructure and Autonomous Data Warehouse, designing ingestion, transformation, modelling and consumption layers for regulated and operational workloads.
- Built integration architectures using Oracle Data Integrator, including change-data-capture, source-to-target mapping, reconciliation, failure handling and production migration patterns.
- Designed cloud foundations covering networking, IAM, encryption, disaster recovery and high availability, and led analytics-modernisation programmes from OBIEE to Oracle Analytics Cloud.

Proskillsgate - Oracle Learning Partner | Egypt / Remote **2018 - 2021**

Accredited Technical Instructor - Oracle Cloud, Data Warehouse & Analytics (Concurrent)

- Delivered 50+ enterprise technical sessions and hands-on labs covering OCI, Autonomous Data Warehouse, Oracle Analytics Cloud, OBIEE, Oracle Data Integrator and dimensional modelling; achieved a 4.8/5.0 customer rating.

CORE TECHNOLOGIES

Data & Analytics: Amazon Redshift, S3, Glue, Lake Formation, EMR, Athena, MWAA/Airflow, Aurora PostgreSQL, DynamoDB, Oracle ADW, dimensional modelling, CDC, data quality, schema evolution

Engineering & Cloud: Python, PySpark, SQL, Lambda, Kinesis, SQS/SNS, Step Functions, IAM, KMS, VPC, CloudFormation, AWS CDK, CodePipeline, CodeBuild, CI/CD

Applied AI: Amazon Bedrock, RAG, prompt/version management, guardrails, evaluation, output validation, LLM integration with enterprise data

CERTIFICATIONS

- AWS Certified Generative AI Developer - Professional (2026) | AWS Certified Solutions Architect - Associate (2025) | AWS Certified Data Engineer - Associate (2025)
- Google Cloud Professional Data Engineer (2025) | Oracle Cloud Infrastructure Architect Associate (2025) | Oracle Cloud Infrastructure Foundations Associate (2025)
- Oracle Accredited Instructor: OCI Solutions Architect, Oracle Analytics Cloud and Oracle BI (OBIEE)

EDUCATION & LANGUAGES

B.Sc. Computer Engineering | Arab Academy for Science & Technology | 2014
Languages: English - C1 Professional Proficiency | Arabic - Native