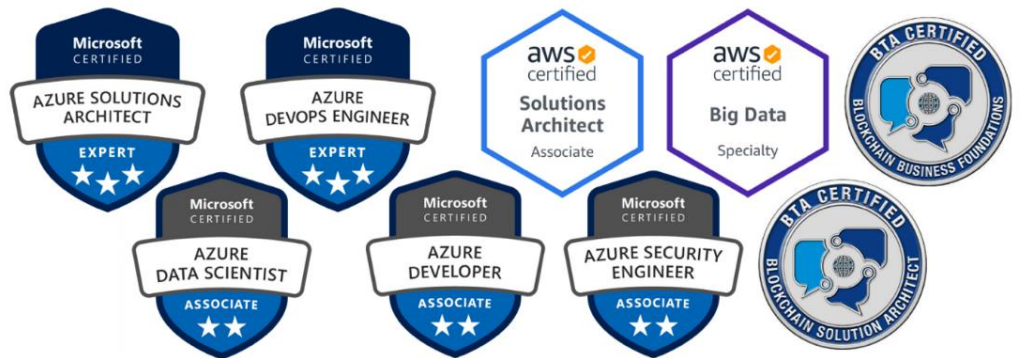


Dr. Syeda Zainab Akhtar

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Summary

- 9+ years of extensive experience in Data, AI, Machine Learning, and Cloud technologies across diverse industries.
- Strong expertise in designing, developing, integrating, and managing enterprise-scale AI-driven applications with a focus on Generative AI, Agentic AI, LLMs, Cloud, and Big Data ecosystems.
- Specialized in Generative AI, Large Language Models (LLMs), AI Agents, Multi-Agent Systems, RAG (Retrieval-Augmented Generation), Prompt Engineering, AI Automation, Data Science, and Blockchain technologies.
- Hands-on experience with modern GenAI and Agentic AI frameworks and platforms including Azure AI Foundry, Azure OpenAI Service, OpenAI GPTs, Claude, Claude Code, LangChain, LangGraph, Semantic Kernel, CrewAI, AutoGen, Hugging Face Transformers, TensorFlow, PyTorch, and Keras.
- Experienced in building AI copilots, intelligent assistants, AI agents, enterprise chatbots, workflow automation solutions, and autonomous AI systems using Agentic AI architectures.
- Proficient in developing, fine-tuning, evaluating, and deploying ML/LLM/GenAI solutions using Azure Machine Learning, Azure AI Studio, MLflow, AWS SageMaker, Vertex AI, and Databricks.
- Strong expertise in Azure AI ecosystem including Azure AI Search, Azure Functions, Azure Cognitive Services, Azure Kubernetes Service (AKS), Azure DevOps, Azure Data Factory, and Azure Agentic AI solutions.
- Experienced in implementing RAG pipelines, vector databases, semantic search, embeddings, AI orchestration, and enterprise AI governance solutions.
- Hands-on experience with modern big data platforms and lakehouse architectures including Databricks, Delta Lake, Cloudera, Apache Spark, Hadoop, Hive, HBase, Sqoop, Flume, and Kafka.
- Professional experience working with SQL and NoSQL databases including MongoDB, Cassandra, Cosmos DB, PostgreSQL, and Redis.
- Expert in cloud platforms including Microsoft Azure, Amazon Web Services (AWS), and Google Cloud Platform (GCP).
- Strong understanding of MLOps, LLMOps, CI/CD pipelines, model monitoring, AI governance, Responsible AI, and scalable AI deployment strategies.
- Holder of 10+ international certifications and 100+ MOOCs, Nanodegrees, and specialized technical trainings in AI, Cloud, Data Engineering, and Generative AI technologies.

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Employment Record

Date	Employer	Position Held
May 2022 – Present	Cognizant	Data & AI Technical Lead
April 2021 – May 2022	Accenture	Senior Azure Developer
November 2018 – April 2021	ASIT Solutions	Cloud and AI Developer
Feb 2017 – October 2018	Logiciel Cube	Software Developer



Academic Attainments

Degree	Year	University
PhD – Artificial Intelligence	2021-2025	Malaysia University of Science & Technology (MUST)
MSC – Business Intelligence and Analytics	2020-2021	University Technology Malaysia (UTM)
Bachelor of Science – Computer Engineering	2015-2018	Sir Syed University of Engineering & Technology



International Certifications

Certifying Body	Certification
AWS	AWS Certified Big Data – Speciality
AWS	AWS Certified Solution Architect Associate
Microsoft	Microsoft Certified Azure DevOps Engineer Expert
Microsoft	Microsoft Certified Azure Solution Architect Expert
Microsoft	Microsoft Certified Azure Security Engineer Associate
Microsoft	Microsoft Certified Azure Developer Associate
Microsoft	Microsoft Certified Azure Data Scientist Associate
Microsoft	Microsoft Certified Azure Data Engineer Associate
Microsoft	MCSA – Microsoft Azure - Cloud Platform
Claude Anthropic	Claude Code in Action
ServiceNow	ServiceNow Certified System Administrator
Blockchain Alliance	Certified Blockchain Business Foundation

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Blockchain Alliance	Certified Blockchain Solution Architect (CBSA)
Microsoft	Microsoft Certified Professional (MCP)
Udacity	Deep Learning Nano Degree
Udacity	Machine Learning Engineer Nano Degree
Udacity	Computer Vision Nano Degree
Udacity	Deep Reinforcement Learning Nano Degree
Udacity	Flying Car Nano Degree
Udacity	React Nano Degree
Databricks	Unified Data Analytics with Databricks Accreditation
Anthropic	AI Fluency: AI Capabilities & Limitations
Anthropic	AI Fluency: Framework & Foundations
Anthropic	Claude Code 101
Anthropic	Claude Code in Action
Anthropic	Introduction to Claude Cowork
Anthropic	Claude 101
Other Courses	100+ Machine Learning, Data Visualization and Big Data Courses



Training & Courses Attended

Institution	Training / Course
Sir Syed University (2 years program)	Python, Power BI, TensorFlow, Tableau, Alteryx, Django and Databricks
Continuing Education Program, SSUET	SQL Server, IBM DB2, MySQL
Databricks	Delta lake architecture, Big data, Structured Streaming
AWS Academy	AWS Data & AI workshop, Data Migration Approach workshop
Udemy	Terraform, Kafka, Kubernetes, Docker and MLOps



Professional Experience (Selected Projects)

Date, Location(s)	Project Role	Project Description
2026, BHP	LLM Architect	RAG-based Virtual Agent with Azure OpenAI and ServiceNow Designed and implemented a Retrieval-Augmented Generation (RAG) solution using Azure OpenAI and Azure AI Search to power an intelligent Virtual Agent integrated with ServiceNow. The system securely retrieves knowledge base articles and purchase data (POs/PRs) from ServiceNow via

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		<p>REST APIs, indexes them as vector embeddings in Azure, and answers user queries through a natural language interface. Role-based access control was implemented to mirror ServiceNow's user permissions, ensuring users only retrieve content they are authorized to access.</p> <p>Main Technologies:</p> <p>Azure OpenAI, Azure AI Search, LangChain, Azure Function App, ServiceNow REST API, Python, Role-Based Access Control (RBAC), Virtual Agent (VA)</p>
2025 AIA	Lead AI Engineer	<p>Multimodal Claims Processing System using Generative AI</p> <p>Designed and deployed a multimodal AI-powered claims processing platform to handle insurance inputs from documents, emails, images, and voice notes. The system automates data extraction, validation, fraud detection, and generates structured claim summaries using LLMs and computer vision models.</p> <p>Key Responsibilities:</p> <ul style="list-style-type: none">-Built multimodal pipelines for processing text, images, and speech inputs-Developed document extraction workflows using Azure Document Intelligence-Implemented LLM-based claim summarization and validation using Azure OpenAI-Integrated Power Apps interface for claim submission and tracking-Automated workflows and approvals using Power Automate-Enabled fraud detection using rule-based + ML-based indicators-Developed Power BI dashboards for claim analytics and monitoring-Deployed and optimized AI services on Azure (AKS / Functions) <p>Main Technologies:</p> <p>Power Apps, Power Automate, AI Builder, Azure OpenAI, Azure Document Intelligence, Azure Speech Services, Computer Vision, Azure Blob Storage, Power BI, Python, LangChain, Azure Kubernetes Service (AKS)</p>
2025, CIMB	Agentic AI Consultant	<p>AI-Powered HR Assistant Agentic AI Project</p> <p>Designed and implemented an agentic AI system that autonomously reads HR policy documents, answers employee queries, and performs actions like applying leave or checking entitlements.</p> <p>Key Responsibilities:</p> <ul style="list-style-type: none">- Extracts and indexes HR policy documents using Retrieval-Augmented

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		<p>Generation (RAG)</p> <ul style="list-style-type: none">– Multi-agent architecture (Planner, Retriever, Executor) for intelligent task coordination– Conversational agent handles contextual queries with memory support– Executes HR tasks (e.g., apply leave, fetch policy info) via API integration with HRMS– Deployable as a chatbot (e.g., Slack/MS Teams) or web-based assistant <p>Main Technologies</p> <p>GPT-4, LangChain, LangGraph, Pinecone, FastAPI, Python</p>
2024, Amazon	Data & AI Lead	<p>Amazon Data Migration & Analytics</p> <p>Planned and executed CIMB Data Migration of Teradata from On-prem to AWS including Databases, Hive Tables, Jupyter Notebooks, Dashboards, Machine Learning Models, Stored Procedures, Views, and other related artifacts also designed the Architecture presenting the detailed approach for migration. Initialised all the services and pipelines for smooth migration process.</p> <p>Main Technologies</p> <p>Amazon Web Services, S3, Sagemaker, Quicksight, Lambda, Glue, EMR, Athena</p>
2023, Malaysian Airlines	Data & AI Senior Developer	<p>Malaysian Airline ADF Project</p> <p>Built and defined Azure Data Factory ETL pipeline involving extraction of data from multiple sources, transforming it into the required format for analysis, and loading it into a data warehouse in a centralised manner. The pipeline handled multiple sources including structured and unstructured data. All the raw data was being synced to Git Repositories using ADF Linked Services. The transformed data was then used in Azure Machine Learning Studio for training models and extracting information. The analysis was used to improve the flying experience and satisfaction of Airline customers.</p> <p>Main Technologies</p> <p>Microsoft Azure, Azure Data Factory, Azure Machine Learning Studio, PowerBI, Git, Data warehouse</p>
2022, Prudential	Azure Cloud Lead	<p>APC GoldMine Migration</p> <p>Developed multiple Databricks generic pipelines for processing huge amount of encrypted data. Each pipeline performed a unique job which</p>

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		<p>included Decrypting PII Data, filtering as per policies, performing ETL processes as per the given requirements and storing it in Data Lake to be used by the other teams for Dashboarding and Analysis.</p> <p>Main Technologies</p> <p>Microsoft Azure, SQL, Databricks</p>
2021, KElectric	Cloud Developer	<p>Metering Solution</p> <p>Over 1 million smart energy meters generate data and send it every 5 mins interval to Azure IoT hub. Azure Data Factory is used for data orchestration. Data processed through Azure IOT hub to Azure Data Lake. Databricks is used for data transformation and later it is moved to SQL data warehouse and Cosmos DB. MLOps also configured which allow machine learning models to automatically train and publish endpoints through Azure ML.</p> <p>Main Technologies</p> <p>Microsoft Azure, SQL DW, Databricks, Cosmos, TensorFlow</p>
2020, UOB	Data Engineer	<p>Voice Enabled – CRM – Project Jarvis</p> <p>Salesperson will use mobile app to create the lead through voice commands. Azure Cognitive – Speech to text (STT) used together with Language understanding (LUIS) to recognize intents. The lead record finally pushes to CRM to create lead.</p> <p>Main Technologies</p> <p>Azure Cognitive, Azure LUIS, Azure Speech SDK.</p>
2020, UOB	Data Migration Architect	<p>BI2020</p> <p>Designed and developed BI2020 project. The plan to move the Teradata data warehouse to Azure SQL data warehouse. The data warehouse connected with 200+ source data and over 350 tera byte of data. Transformation of data processed on Cloudera for big data environment. Implementing various use cases using Spark, HBase, Hive, machine learnings etc.</p> <p>Main Technology Used:</p> <p>Azure, Cloudera, SQL Data warehouse</p>

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2018, BDO Bank	Data Engineer	Archiving with Predictions - Big Data 50+ terabyte of emails transferred into Hadoop commodity hardware on real time, it first converts the email into sequence files (compression up-to 5 times less size) recovered search results within 7-10 seconds. By applying machine learning algorithms, we are able to collect so many useful predictions based on that data. Main Technology Used: Hadoop, Tensorflow, Keras
2018, Civil Aviation	Data Engineer	Call Centre Predict Customer Engagement - Big Data This project designed for call centre. They have petabyte of voice call recordings in their storage. Moved all the call recordings into Hadoop commodity hardware, process audio files, convert speech into text and apply machine learning algorithms to predict customer engagements with operator. Main Technology Used: AWS, TensorFlow, Keras

Personal Information

Interest: Reading, exploring emerging technologies, and playing strategic games.
Date of Birth: 21st January 1996. Female