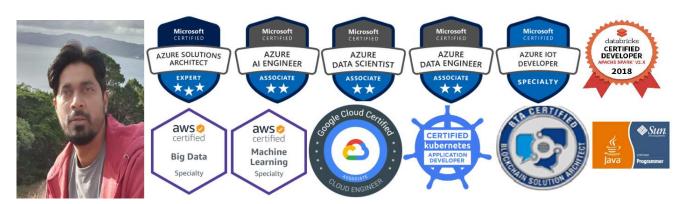
## Dr. Engr. S. M. Farrukh Akhtar

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## Summary

- > Security Clearance Holding NV1 Security Clearance.
- More than 15 years of experience analysis, designing, developing, integrating, and managing large applications for diverse industries. 7+ years of experience in Cloud, Data Science, Big Data and Blockchain.
- Exposure of working in Australia, Malaysia, Singapore, Germany, Dubai and Pakistan.
- Expert level skills in Data Science, AI & Blockchain.
- Hands on experience in Machine Learning/ Deep Learning with TensorFlow, Generative AI, Large Language Model (LLM), Keras, Pytorch, Azure ML, ML Flow, AWS Sage Maker.
- Expert skills in Azure, AWS and Google Cloud.
- > 10 academic degrees, 40+ international certifications and over 200+ MOOCs, certificates, and Nano degrees.
- > Globally No. 2 in International Certifications and No. 8 in the world as Databricks Champions.

Employment Record			
Date	Employer	Position Held	
April 2022 – Present	Dynxsoft Pty Ltd	Solutions Architect – Data and Al	
March 2021- April 2022	Accenture Australia Pty Ltd	Tech Architect Delivery Manager – Data and Al	
June 2018 – March 2021	Avanade Australia Pty Ltd	Solutions Architect - Data Engineering, Analytics	
Feb 2017 – March 2018	Hewlett Packard Enterprise	Manager - Solutions Architect, Analytics	
April 2014 – Feb 2017	Celcom, Malaysia	Enterprise Solutions Architect	
March 2013 – Jan 2014	Vodafone, Germany	Solutions Architect	
May 2011 – Feb 2013	ASIT Solutions, Pakistan	Solutions Architect	
June 2008 – April 2011	Lin Scan Advance Pipeline, U.A.E.	Development Head - ERP	
Nov 2006 – May 2008	Logiciel Cube, Pakistan	Senior Software Engineer	
Feb 2006 – Nov 2006	InfiniLogic (Private) Limited, Pakistan	Software Engineer	

Academic Attainments			
Degree	Year	University	
DBA (Doctor of Business Administration) – Machine Learning & Artificial Intelligence	2023	UCAM Universidad Católica San Antonio de Murcia - Spain	
Ph.D. in Computer Science – Specialization in Artificial Intelligence	2018	European Global School – France	
DBA (Doctor of Business Administration) – Information Systems	2023	Vern University - Croatia	
DBA (Doctor of Business Administration) – Data Science	2023	Brittany University - France	
MSC – Data Science and Artificial Intelligence	2022	University of London – United Kingdom	
MSC – Digital Currencies, Blockchain	2020	University of Nicosia – Cyprus	
MBA – Information Systems	2021	University of Wales Trinity Saint David – United Kingdom	
MBA – Organizational Leadership	2021	University of the West of Scotland – United Kingdom	
Bachelor of Science in Computer Engineering	2005	Sir Syed University of Engineering & Technology - Pakistan	

International Certifications		
Certifying Body	Certification	
Databricks	Databricks Champion (8 <sup>th</sup> in the world)	
Databricks	Databricks Certified Developer - Apache Spark 2.x for Scala	
AWS	AWS Certified Machine Learning – Speciality	
AWS	AWS Certified Big Data – Speciality	
Google	Google Certified Associate Cloud Engineer	
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 Al Engineer Associate	
Microsoft	Microsoft Certified Azure Data Scientist Associate	
Microsoft	Microsoft Certified Azure IoT Developer - Speciality	
Microsoft	Microsoft Certified Azure Cosmos DB Developer Specialty	
Microsoft	Microsoft Certified Azure Data Engineer Associate	
Microsoft	Microsoft Certified Azure Database Administrator Associate	
Microsoft	Microsoft Professional Program – Big Data	
Microsoft	Microsoft Certified Solutions Expert – Data Management & Analytics	
Microsoft	MCSA – Microsoft Azure - Cloud Platform	

# Dr. Engr. S. M. Farrukh Akhtar

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Cloud Native	Kubernetes Certified Application Developer (CKAD)
Blockchain Alliance	Certified Blockchain Security Professional
Blockchain Alliance	Certified Blockchain Ethereum Developer
Blockchain Alliance	Certified Blockchain Business Foundation
Blockchain Alliance	Certified Blockchain Hyperledger Developer
Blockchain Alliance	Certified Blockchain Solution Architect (CBSA)
IBM	IBM Certified Big Data Architect
IBM	IBM Certified Solution Developer – XML and Related Technologies
Sun Microsystem	Sun Certified Java Programmer (SCJP)
Oracle	Oracle Certified Associate – 9i (OCA)
Microsoft	Microsoft Certified Solution Developer (MCSD.NET)
Microsoft	Microsoft Certified Application Developer (MCAD.NET)
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



### **Publications**

- > Author of a best seller book on Artificial Intelligence and Machine Learning title "Practical Reinforcement Learning" - 467 pages: ISBN - 9781787128729. https://tinyurl.com/ycjenzkm
- ➤ Author of book on Big Data and Machine Learning title "Big Data Processing Using R and Spark" 360 pages.
- > Author of book on Big Data Analytics title "Big Data Analytics with Apache Kudu" 200 pages





### **Professional Experience (Selected Projects)**

Date, Location(s)	Project Role	Project Description
2023, Australia	Data Architect	Education Victoria - Enterprise Data and Analytics Platform
		Develop the modern centralised cloud-native platform that enable the modernisation of many on-premises data management solutions such as

		the Enterprise Reporting and Business Intelligence (ERBI) data warehouse
		and Edu-Masters, along with several other legacy reporting databases.
		Main Technologies
		Azure, Synapse
2023, Australia	Data Architect	Enterprise Data Platform - Bank of Australia
		Design and develop Bank of Australia data platform on Azure Databricks.  Data Ingestion from 27 data sources with over 500 objects.
		Main Technologies
		Azure, Databricks
2022, Australia	Solutions Architect	Optus – Unified Data Platform
		Take part in architecture review board for building Unified Data Platform for Optus. The solution use Azure Cloud and Databricks lake house architecture. ML flow used for the various machine learning use cases.
		Main Technologies
		Azure, Databricks, ML Flow
2022, Australia	Data/ML Engineer	Rabobank – KYC App
		A year long project at an international bank based in Sydney building a fully developed KYC/MDM solution involving an ensemble of computer vision models and a React front-end with cosmos DB serving the transactional data.
		Main Technologies
		Azure, Databricks, ML Flow
2021, Australia	Solutions Architect	Energy Australia – 5 sec Settlement
		Implement the 5 seconds settlement as per the government regulation. Databricks lake house architecture is used on top of AWS cloud for the big data processing.
		Main Technologies
		AWS, Databricks

2020, Australia	Data Architect	Coles - Product to Order Stream
		MRL is a Coles data cache, it leveraged across multiple use cases for services and core merchandise data for Coles group. MRL provide a degree of abstraction and decouple source system from consumers of merchandise data.  Main Technologies
		Microsoft Azure, Databricks, Cosmos DB
2019, Australia	Data Architect	Queensland Energy – Metering Solution
		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.
		Main Technologies
		Microsoft Azure, SQL DW, Databricks, Cosmos, TensorFlow
2020, Australia	ML Engineer	Voice Enabled – CRM – Project Jarvis
		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.
		Main Technologies
		Azure Cognitive, Azure LUIS, Azure Speech SDK.
		Demo Video
2019, Australia	ML Engineer	https://youtube/WTW3N_MCFIA  Touchless User Interfaces for Melbourne Airport
2019, Australia	IVIL LIIGIIICCI	Due to Covid-19 people are scared to use public touch screens/buttons.  Developed hand gesture and voice automated touchless screens. Used Intel  Real Sense Depth cameras and deep learning to detect hand gestures.

		Microsoft Speech SDK and LUIS models to recognize speech commands.
		Azure DevOps used for the CICD development and release pipelines.
		Main Technologies
		Deep Learning, Computer Vision, Real Sense Depth Cameras, Azure DevOps.
		Demo Video
		https://www.youtube.com/watch?v=9EY3Ti6dU1I&t=19s
2019, Australia	ML Engineer	Panasonic IoT Edge Platform
		Robots use computer vision to detect several devices in the assembly floor. The inference model deployed on edge devices. Use deep learning and computer vision to develop the models and Azure Kubernetes Services to manage all the microservices. Use MLOps process for CICD pipelines where the model will auto train and publish the artifacts. Azure IoT Hub is used to manage IoT devices, devise provisioning handled through Azure DPS service.
		Main Technologies
		Azure IoT Hub, DPS, Deep Learning, Computer Vision, Azure Cognitive, Azure DevOps.
2018, Australia	MLOps Engineer	MLOps Auto Provision Resources
		The aim of this project is to make it easy for Data Scientists to be able to easily provision all the resources needed to replicate, explore, and potentially build from our project on an inner source version. This project uses state-of-the-art Microsoft machine learning technology, and development teams that start with azure machine learning services will benefit from it. All the base line azure machine learning and related services and best practices of MLOps are set automatically by the project.
		Main Technologies
		Azure DevOps, Azure Machine Learning
		Demo Video
		https://www.youtube.com/watch?v=lw3cly3O8bY
2018, Australia	Data Architect	Telsta – BI2020
		Design and develop Telstra 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.  Main Technology Used:  Azure, Cloudera, SQL Data warehouse
2017, Malaysia	Data Architect	Telecom Malaysia – DiCE Portal  Design and develop Telecom Malaysia DiCE Portal that is connected to 25+ backend systems. It exposed to public to schedule appointment, paying bills, order management, reseller module etc.  Main Technology Used:  AWS App Services, Java, Amazon Aurora, Amazon Redshift
2016, Malaysia	Solution Architect	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:  AWS, Cloudera, TensorFlow, Keras
2016, Malaysia	Solution Architect	Call Center Predict Customer Engagement - Big Data  This project designed for call center. 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
2013, Germany	Senior Developer	Vodafone Group Lifecycle  The project developed and implemented on site Vodafone, Dusseldorf, Germany. Lifecycle currently retains customer data indefinitely. The

		retention of data can only be justified for business purposes; therefore a configurable batch job needs to be integrated to remove data (millions of records) from the three main Life cycle data stores of Customer Registry (Oracle, Linux), LDAP (Sun Solaris) and Discovery (Oracle, Linux).  Main Technology Used:  Java, Oracle, Shell Scripting
2008, Dubai	Project Manager - ERP	Enterprise Resource Planning (ERP) & Control System  Following modules are developed from scratch and successfully implemented in house in LIN SCAN Advance Oil & Gas Pipeline Inspection Company FZE Hamriyah Free Zone, Sharjah to meet requirements for maintaining and controlling integrated business processes. ERP System is running / implemented in 23 countries includes all branches and site offices worldwide.  • HR Management System • Biometrics Attendance System • Payroll System • Financial Management System • Inventory Control System • Inventory Control System • Procurement / Purchase System • Sales Management System • Projects Management System • Projects Management System • Logistics Management System • Logistics Management System • Production / Manufacturing Management • Task Management System • Requisition System • Requisition System • Meetings Management System • Personalization of User Screens • Fast Full Indexed Search System • Quality Control Check and Monitoring  Main Technology Used:  Dot Net Technologies, SQL Server 2005