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# Abdul Rauf Agha

Business Intelligence / Data Engineer / AI Automation Developer

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## Professional Summary

**Engineered** and optimized large-scale Data warehouse, and ETL processes, transforming raw data into structured, high quality datasets to support strategic analytics and decision-making.

**Spearhead** end-to-end Big Data and data warehousing initiatives in Agile settings, architecting scalable, distributed solutions using tools like Hadoop, Spark, and cloud platforms.

**Delivered** advanced data processing solutions for use cases such as anomaly detection, operational optimization, and behavioral analytics, improving system performance and business outcomes.

**Specialized** in data architecture and schema design, ensuring efficient storage, retrieval, and visualization of big data for enterprise-grade reporting and analytics.

## Experience

Senior Consultant (Data Product Developer), SMART SOLUTIONS LLC (Dubai, UAE)

JUL 2024 – Present

Led multiple client projects and implementations using Agile methodology, ensuring successful delivery, while driving pre-sales efforts in UAE KSA & Oman to expand into diverse markets.

- **Develop multiple Business Automation and AI Agents for multiple clients which includes:**
  - Procure to Pay AI Automation (GenAI Intakes, RFP Agents, PO Automation, Autonomous Sourcing & Negotiation Co-pilot, Invoice Processing Automation)
  - Motor Claims Surveyor AI Agent
  - Loan Underwriting Approval AI Agent
  - Complaint Automation convert to FAQs and Sentimental Analysis
  - Contract Management AI Agent
  - Data Extraction AI Agents
  - Data Entry AI Agents
  - Engagement & Survey AI Agents

### 1. Ministry of Health Sultanate of Oman – Muscat, Oman

- **Participated** in Big Data platform deployment for a healthcare provider to modernize patient data analytics.
- **Developed** Spark applications and built ETL/ELT pipelines using the AI-Shifa API to transform complex JSON patient data into parquet formats, enabling real-time ingestion and improving data fetch speed by 30%
- **Implemented** Reverse ETL pipelines to push curated, aggregated patient summaries back to the doctor's application layer, enhancing patient care visibility.
- **Enhanced** care delivery by reducing manual data retrieval time by 50% and enabled near real-time analytics.
- **Documented** data lineage and transformation logic to support future audits and compliance.

### 2. National Finance Company – Muscat, Oman

- **Spearheaded** the ETL development for a retail finance project by integrating multi-source customer and transaction data, transforming it into a clean, analytics-ready model within a centralized data warehouse.
- **Designed** and developed subject-specific data marts to support key business domains such as Credit Risk, Treasury, and Loans, ensuring faster and more reliable reporting.
- **Revamped** SSIS ETL pipelines and integrated Jedox, enabling efficient real-time and historical data transformation.
- **Led** the team through a smooth Power BI migration, creating detailed documentation and delivering post-migration support to ensure sustained adoption and success.

- **Implemented** financial data models for Credit Risk Analysis, Treasury, Loans, and Mortgages, enabling the finance team to effectively manage customer credit and mitigate risks.

### 3. Abu Dhabi National Takaful – Abu Dhabi, United Arab Emirates

- **Extracted** policy, claim, and risk data from core insurance systems and external underwriting sources.
- **Built** robust ETL pipelines in SSIS, applying SCD logic to normalize data into a fact-dimension model.
- **Designed** and populated a centralized Insurance Data Mart with clear schema separation (Policies, Claims, RiskFactors) and create Dashboards.
- **Integrated** RPA bots with the Premia platform to automate data extraction and streamline SSIS-based workflows.
- **Enabled** near real-time reporting and reduced manual processing efforts by 60%, improving operational efficiency.

### 3. KTC International – Dubai, United Arab Emirates

- **Designed** and implemented a real-time parking analytics platform with a 12-minute data lag, integrating data from IoT sensors via RESTful APIs to monitor parking availability across multiple zones.
- **Developed** interactive dashboards in Qlik Sense, overlaying real-time parking site layouts to visualize zone-wise occupancy, entry/exit trends, and peak usage times for enhanced decision-making.
- **Built** robust ETL pipelines, automating the extraction and transformation of JSON-based sensor data into optimized QVDs for fast querying and historical analysis.
- **Performed** spatial analysis to evaluate traffic flow and parking behavior, enabling strategic sensor placement and improving data accuracy by 40%.
- **Collaborated** with IoT and infrastructure teams to ensure accurate sensor calibration, reliable data ingestion, and seamless integration into the reporting ecosystem.
- **Improved** parking space utilization by 30% and reduced congestion through timely insights provided to facilities and operations teams, supporting better traffic management and user satisfaction.

### 4. Al-Jazeera Takaful – Jeddah, KSA

- **Designed** and developed SSIS ETL pipelines to integrate and transform motor insurance data related to claims, risk exposure, and growth metrics. The curated data was used to power custom dashboards, enabling the Motor department to make data-driven strategic decisions
- **Enhanced** the data model to improve performance and scalability, utilizing indexing and cursors to efficiently handle complex and hierarchical insurance data, resulting in a 50% reduction in query times and faster, more reliable data access
- **Deployed** Qalypus to automate the distribution of Qlik Sense reports and dashboards, embedding HTML reports into internal applications, which boosted user interaction by 60% as part of the organization's data literacy campaign.

**Data Engineer / BI Consultant, BLUTECH CONSULTING (Karachi, Pakistan)**

**FEB 2022 – JUN 2024**

### 1. Habib Bank Limited – Karachi, Pakistan

- **Led** end-to-end ETL pipeline development in SSIS, integrating data from diverse sources into a centralized data lake, improving data accuracy by 30% and reducing access time by 40%.
- **Built** fraud analysis reports to detect unusual financial transactions and profile customer behavior, enhancing fraud detection capabilities.
- **Developed** IVR Utilization dashboards for the Customer Experience team, analyzing key call metrics and reducing agent transfers by 25%.
- **Created** compliance tracking reports for regulatory circulars, achieving 100% closure within deadlines for two consecutive quarters.
- **Analyzed** account opening TAT and rejection trends, leading to a 15% drop in rejections and a 20% improvement in processing time.

## 2. Bank Alfalah— Karachi, Pakistan

- **Enhanced** Enterprise Data Warehouse architecture by contributing to semantic layer development and dimensional data modeling, improving data accessibility and reporting performance across departments.
- **Developed** SSIS pipelines to analyze anomalies in customer login patterns and Alfa Store e-commerce transactions, supporting fraud investigations and enhancing detection of suspicious activities to mitigate fraud risk.
- **Developed** SSIS ETL workflows to integrate and transform core banking data into a unified data model supporting Customer 360° and Profitability analysis, enabling the Finance team to track key KPIs such as Net Interest Margin, Non-Funded Income, and P&L for improved financial decision-making
- **Built** an Expense Management Portfolio tracker, enabling comparison across multiple time frames against annual goals, improving budget visibility and supporting a 10–15% improvement in cost control and financial planning.

## Business Intelligence Developer, BADRI MANAGEMENT CONSULTANCY

JAN 2020 – JAN 2022

- **Data Modeling** for the **Motor Insurance** business logics (Specifically for Middle Eastern Market).
- Extract **KPIs** from the business logics.
- Developed strategies for **ETL** mechanism using **Qlik**
- Designed dashboards for market trends and patterns in **Motor Insurance** for **Walaa Insurance (Saudi Arabia)**
- Generated reports with market trends like **Loss Ratio, Burning Cost, Severity** and **Frequency** for **Motor Insurance**.
- I have been involved in digitizing E-Forms for **Cigna Insurance** and create insightful reports.

## Associate Business Intelligence Consultant, TALLYMARKS CONSULTING

APR 2019 – JAN 2020

- Performed data collection and procedures, designed metrics, dashboards & reporting using **Qlik Sense**
- Writing data collections and procedures
- Creates KPIs dashboards
- Implementing data modeling methodologies.
- Create visualization and reports

## Internee, Agility Logistics

JUN 2015 – JUL 2015

- Observe In-Vehicle Monitoring System reporting and convert it into Dashboards SAP Lumira
- Manages work order and maintenance model architecture on SQL Server

## Education

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### Karachi Institute of Economics & Technology (KIET)

DEC, 2017

*Bachelors of Science in Computer Science*

## Certifications

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- Microsoft Power BI Data Analyst (PL-300)
- Microsoft Azure Data Fundamentals (DP-900)
- Alteryx Foundational Micro-Credentials
- IBM DataOps Methodology

## Skills

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Dashboard and Reporting: **Power BI, Qlik Sense, Tableau, QlikView, Qlik NPrinting, Qalyptus**

Databases: **MS SQL Server, Oracle SQL, PostgreSQL, MySQL, DB2, MongoDB, Pincone, Supabase**

Data Integration & ETL Tools: **Azure Data Factory, SSIS, DBT, Alteryx, KNIME Programming**

Languages: **Python, PySpark**

Big Data & Data Platforms: **Hadoop, Hive, Impala, Azure Data Lake, Azure Synapse Analytics**

Cloud Platforms: **Microsoft Azure, Microsoft Fabric**

Operating Systems: **Windows, Linux**

Automation Tools: **Power Automate, n8n Automation, Zapier, Flowise**

GenAI: **OpenAI, Ollama, LangChain, LlamaParse**