Saleh Othman Alhuqayl

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Professional Summary

Professional in the field of Data Science and Artificial Intelligence, specializing in developing and analyzing innovative technical solutions to improve data quality and support strategic decision-making in the public sector. Possesses hands-on experience in utilizing machine learning and AI techniques to enhance business operations and improve the efficiency of data-driven systems. Strong passion for deep data analysis and developing effective solutions for big data challenges. Has worked on projects related to improving data quality and creating strategic reports to support decision-making during peak seasons. Possesses strong communication skills with both technical and non-technical teams, contributing to achieving business goals and ensuring project success.

Professional Experience

Data Scientist – Mozn | November 2024 – Present

- Designed and implemented AI and data science solutions in collaboration with companies and government ministries.
- Built and integrated 15+ data systems and data catalog using Informatica, covering 80% of the Ministry of Hajj and Umrah (MoHU) infrastructure and aligning data flows with the National Data Index (NDI) from SDAIA.
- Developed and optimized business rules within Informatica, mapping them to 150+ Critical Data Elements (CDEs) to enhance data quality, governance, and compliance.
- Increased data accuracy by 25% through error detection and correction processes in geographic data, utilizing Python-based data validation methods.
- Improved data quality by 15% via advanced data formatting techniques using Python, aligned with NDI standards.
- Accelerated the generation of analytical and operational reports by 20%, enabling faster decision-making during peak Hajj seasons.
- Collaborated with non-technical teams to identify gaps and recommend data-driven strategies for quality improvement.

Operations Analyst – Boeing Saudi Arabia (Internship) | July 2024 – October 2024

- Participated in the development and enhancement of Boeing's internal simulation tools, designed to replicate operational processes and support decision-making, similar in nature to engines like Unreal Engine.
- Delivered presentations to military stakeholders to communicate insights from operational analyses and simulation outcomes.
- Collaborated with project management teams in preparing and reviewing project documents such as Requests for Proposals (RFPs) and Statements of Work (SOWs).
- Conducted detailed analyses to support operational efficiency, improve performance, and reduce operational costs.
- Reduced operational costs by 12% by offering practical data-driven solutions.

Volunteer Experiences

- **Aspiring Data Professionals | Link to LinkedIn Page**
- **Organizing Member** | 2024 – Present | Riyadh
- Organized and managed weekly sessions specialized in data science to exchange deep knowledge among professionals and expand technical understanding in fields like data analysis and machine learning. Designed as part of a professional learning community that aims to provide members with the latest developments in data science, enhancing continuous learning and interaction among individuals with shared interests.

Tech Hub Student Club | [Link to Club Website](#)

- **Leader** | August 2023 – June 2024
- Led the club to win the Gold Award for Excellence in Student Activities by developing and implementing innovative initiatives that enriched student activities and promoted leadership and effective collaboration among members. This success was achieved through the introduction of professional programs and scientific workshops that raised awareness of technology and data science among students.
- **Co-Leader & Head of the Organizing Committee** | October 2021 – August 2023
- Led the development of the club's website (techhubmu.com), serving as a key communication hub between members and displaying upcoming events and activities. Contributed to building a strong digital community that supported educational and social activities. Enhanced user experience and encouraged digital participation, which increased engagement and active participation among club members.

Education

Bachelor's in Computer Science – Data Science Track | Majmaah University | Graduation Date: August 2024

–   GPA: 4.72 out of 5

Certificates

- **Predictive Analytics Modeler Certificate** | IBM | [Link to Certificate](#)
- **Jr Data Scientist Certificate** | INE | [Link to Certificate](#)
- **HCIA-AI Certificate** | Huawei | [Link to Certificate](#)

Research & Publications

Improving Predictive Maintenance in Industrial Environments via IIoT and Machine Learning
Academic Research | 2023 – 2024 | [Link to Paper](#)

Published in **IJACSA**. This project focused on improving predictive maintenance procedures through the application of machine learning and Industrial IoT (IIoT) techniques, significantly enhancing machine reliability, increasing their lifespan, and optimizing maintenance processes to reduce breakdowns.

Investment Growth Analysis of TASI and Gold Futures | Case Study | 2023 – 2024 | [Link to Paper](#)

Analyzed the investment growth of 1000 SAR in Gold Futures and the Tadawul All-Share Index from 1998-2023, providing insights for portfolio diversification.

Skills

Soft Skills

Leadership | Problem Solving | Presentations | Communication | Project Management | Analytical Thinking | Team Management | Strategic Decision-Making | Time Management | Creativity | Organization

Practical Skills

Data Engineering | Data Pipelines | Data Analysis | Machine Learning | Automation | Process Optimization | Data Visualization | Reporting | Business Intelligence | Data Cleaning | Data Quality

Technical Skills

Languages & Tools: Python | C++ | SQL | Informatica Cloud (IDQ) | Microsoft Excel | Microsoft Office
Libraries & Frameworks: Pandas | NumPy | Polars | Scikit-learn | Matplotlib | Geopandas | PyTorch
Data Capabilities: Data Cleaning | Data Visualization | Web Scraping | API Integration | Data Pipelines

Languages

- **English | Arabic**