

### **Sarah M. Aljudaibi**

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## Data Scientist and BI

### SUMMARY

Data Scientist with strong background in developing AI driven and computer vision solutions. Skilled in building and deploying end-to-end ML pipelines, from collecting data, cleaning, Annotation, preprocessing, and conducting in-depth exploratory data analysis (EDA). Currently contributing to AI-driven initiatives at **Artificial Intelligence Global Company**, implementing advanced analytics and AI solutions such as computer vision for object detection using YOLO-based object detection models across multiple use cases, LLM for sentiment classification, GenAI for translation, and design interactive dashboards for supporting strategic decisions. Highly proficient in Python, SQL, HTML, CSS, Bootstrap, and Flask. Experience using data visualization and business intelligence tools like Power BI, Tableau, Plotly Studio, and Python-based analytics libraries (Pandas, Matplotlib, Seaborn, etc.).

### EDUCATION

#### **Master's Degree**

Degree : Computational Analytics  
University : King Fahd University of Petroleum and Minerals (KFUPM)  
Date Graduated : Aug 2022, GPA: 3.62

#### **Bachelor's Degree**

Degree : Computer Science  
University : Taibah University  
Date Graduated : March 2019, GPA: 4.58

#### **Associate's Degree**

Degree : Computer Programming & Information  
University : Taibah University  
Date Graduated : March 2014, GPA: 4.83

### WORK EXPERIENCE

#### **Data scientist**

Company : Artificial Intelligence Global Company  
Position / Job Title : Data Scientist  
Employment Duration : Jan 2025-present

- Duties & Responsibilities** :
- Assisted in a computer vision project by testing, debugging, and refining models and algorithms for a surveillance system aimed at enhancing construction site safety.
  - Collected and annotated large volumes of images data through web scraping to support training customized use cases for computer vision project.
  - Contributed to the development of AI-driven computer vision applications for substation safety, implementing YOLO-based object detection models across multiple use cases to enable automated safety monitoring and early warning mechanisms for risk prevention.
  - Collaborated on analytics project involving structured databases and utilized Power BI to develop interactive data visualization dashboards, enabling real-time analytics and supporting informed decision-making for both technical and business stakeholders.
  - Developed a generative AI-based translation system to enable effective multilingual communication across diverse user groups.
  - Support in building customized intelligent agents to systematically analyze customer feedback, identify key patterns, and enhance overall user experience.
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### ***Data Scientist***

- Company** : KFUPM Center for Environment and Marine Studies
- Position / Job Title** : Data Scientist
- Employment Duration** : Feb 2023 – Jan 2025
- Duties & Responsibilities** :
- Led machine learning initiatives focused on environmental data analysis and image recognition, with an emphasis on real-world applications.
  - Designed and implemented CNN-based computer vision models for the classification of Red Sea fish species, utilizing the ARCEMS dataset to support marine biodiversity research, and applied hyperparameter optimization techniques to improve model accuracy and performance.
  - Collaborated closely with a cross-functional team to optimize data preprocessing workflows and automate repetitive tasks, resulting in significant improvements in the efficiency of data processing pipelines.
  - Developed an interactive data visualization dashboard using Python-based analytics tools to enhance interpretability for data analysts and support data-driven decision-making.
  - Served as a key organizer and active member of the Scientific Committee for the 2024 Center Conference (GiKS), contributing to academic planning and coordination.



## COMPUTER SKILLS

- **Programming & Scripting:** Proficient in Python, SQL, with hands-on experience in Front-end web development such as HTML, CSS, Bootstrap and Flask, debugging, and version control. Capable of building robust data-driven solutions through clean, maintainable code.
- **Data Management & Processing:** Skilled in web scraping through python or API call, data cleaning, transformation, and integration using libraries such as pandas and NumPy, as well as SQL for structured data handling. Adept at preparing high-quality datasets for analytical and machine learning applications.
- **Machine Learning & AI:** Strong foundation in machine learning, including supervised and unsupervised learning, Computer Vision, Large Language models, Generative AI, and Time Series. Expertise in building and optimizing CNN and YOLO-based models for object detection and image classification, applying hyperparameter tuning and augmentation techniques to improve performance.
- **Data Visualization & Reporting:** Proficient in developing insightful and interactive visualizations using Matplotlib, Seaborn, Tableau, Plotly Studio and Power BI to support data storytelling and strategic decision-making.



## TECHNICAL SKILLS

### Analytics Tools:

- Anaconda, Jupyter Notebook, Google Colab, Visual Studio, Flask web development API.
- Tableau for data visualization
- MS Power BI for data visualization
- Plotly Dash for data visualization

### Programming Languages:

- Python (Machine Learning and Data Visualization)
- SQL (PostgreSQL, MS SQL Server)
- Front-End web development (HTML, CSS, Bootstrap, Flask)

### Machine Learning Libraries:

- Keras, TensorFlow, and scikit-learn
- Ultralytics YOLO
- OpenAI
- Langchain
- Ollama
- Hugging face



## CERTIFICATIONS

- Aveva Tool Predictive Analytics for Clients, Aveva 2025
- Complete Power BI Bootcamp, Udemy 2025
- Practical Application of Generative AI for Project Managers, PMI 2025
- Generative AI Overview for Project Managers, PMI 2025

- Generative AI with Large Language Models, Coursera (DeepLearning.AI) 2024
- Front-End Web development (HTML, CSS, Bootstrap), Udemy 2022
- Data Scientist Immersive course, General Assembly 2020
- Digital Marketing Nanodegree, Udacity 2020



## PERSONAL INFORMATION

Nationality : Saudi Arabian  
Marital Status : Single  
Date of Birth : 15 September 1994  
Religion : Muslim  
Languages : Arabic, English