Data Scientist

AHMED ALI

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Education

MASTER OF DATA SCIENCE – RWTH Aachen – Germany, Aachen — September 2023
Majors: Computer science, Data science, Machine Learning
Thesis: Data integration in a data lake system

BACHELOR OF COMPUTER SCIENCE – Alexandria University – Egypt, Alexandria — June 2018
Majors: Computer science

Skills

- SQL (Oracle, MySQL, PostgreSQL)
- Python (Pandas, NumPy, SciPy, MatPlotLib, Scikit-learn, NLTK)
- Tableau
- JavaScript, React, REST
- Statistical Modeling
- Machine Learning
- A/B Testing
- JAVA

Work Experience

DATA SCIENTIST – DXFACTURE **–** Germany, Aachen — March 2023 - Present

- Developed a comprehensive **Tableau** dashboard for SweetConnect, showcasing CO2 emission and product pricing data, enhancing the company's ability to make environmentally conscious and cost-effective decisions.
- Collaborating with customers on projects to analyze and merge data from multiple **Excel** files.
- Designing and developing data pipelines (**Python**) for energy-related data, including weather data and prices, to enable efficient and reliable data processing and analysis.

SOFTWARE ENGINEER– Exporto – Germany, Aachen — April 2022 - November 2022

- Optimized **SQL** queries to double the speed of search operations, significantly enhancing the user experience for Exporto customers.
- Designed and developed a global category search feature, boosting parcel processing efficiency for warehouse staff.

SOFTWARE ENGINEER INTERN – Amazon Web Services – Germany, Berlin — September 2021 - February 2022

- Designed, implemented (**React**), and tested (**Cypress**) advanced filters for AWS QuickSetup services, boosting customer engagement.
- Enhanced the user experience for QuickSetup, optimizing the user journey from the AWS website through service creation.
- Streamlined the development process by implementing a new workflow for **AWS Synthetics**, reducing the team's development time by 5% by enabling local testing without deploying code to gamma first.

DATA SCIENTIST – EJADA – Saudi Arabia, Riyadh — July 2018 - March 2020

- Collaborated with the business intelligence team to create a comprehensive dashboard using **SQL** and **Tableau**, effectively summarizing tax payments across various groups and tax types, enabling stakeholders to gain valuable insights and make informed decisions regarding taxation strategies.
- Acted as an external resource for the data engineering team, successfully delivering 20+ **ETL** packages to production using Microsoft **SQL** and SSDT, contributing to the efficient management and transformation of data for enhanced business analytics and decision-making processes.
- Created a data pipeline to clean and merge tax registration data from various Excel files, resulting in a **Tableau** dashboard that provided a timeline of tax submission information for analysis and decision-making purposes.

Selected Projects

ESTIMATE DELIVERY TIME – Personal Project – Germany, Aachen, Link May 2023

- Conducted **exploratory data analysis** to identify key trends, including peak demand times and differences in delivery times across various markets, thereby gaining insights into factors influencing delivery times.
- Implemented machine learning algorithms like **Linear Regression** and **Random Forest** to predict delivery times, optimizing model performance through **feature selection** and hyperparameter tuning.
- Utilized statistical methods such as **best subset selection** and **p-value** calculations to identify and select the most relevant predictors for the model, improving model accuracy and interpretability.

CO2 EMISSION USE CASE – DXFACTURE – Germany, Aachen, Link April 2023

- Led a **Tableau** data visualization project for SweetConnect, with a focus on CO2 emissions analysis.
- This initiative significantly heightened the company's understanding and awareness of their environmental impact.

A/B TESTING EMAIL-SIGN-UP – Personal Project – Germany, Aachen, Link February 2023

- Designed and executed an **A/B test** for Urban Wear's pre-launch email sign-up page, using **Python** and **statistical** methods to compare the effectiveness of different submit button colors.
- Analyzed test results to provide data-driven recommendations, enhancing decision-making processes and maximizing email collection efforts.

CAMPAIGN ANALYSIS – Personal Project – Germany, Aachen, Link January 2023

- Implemented a data cleaning and preprocessing pipeline in **Python** using **pandas**, streamlining campaign analysis by handling data inconsistencies, and extracting key elements from campaign names.
- Transformed data structures and calculated essential metrics, enabling efficient and accurate evaluation of marketing performance.

SPOTIFY DATA ANALYSIS – Personal Project – Germany, Aachen, Link December 2022

- Leveraged Python and Pandas to extract and analyze personal streaming history data from Spotify, developing a **web scraping** pipeline for raw **data extraction**.
- Utilized data analysis methods to derive key metrics such as average daily listening time and monthly modes, providing valuable insights into personal streaming patterns and preferences.

MUSIC RECOMMENDATION ENGINE – Personal Project – Germany, Aachen, Link December 2022

- Designed and developed a personalized music recommendation engine, leveraging public Spotify datasets and a **machine learning (KNN)** algorithm, and utilized **Python** for **data cleaning** and **scraping**.
- Hosted the application on Streamlit, enabling personalized music recommendations for users.

SOLAR ANALYSIS FOR SOUTH GERMANY– Fraunhofer IAIS – Germany, Bonn, Link November 2022

- Conducted comprehensive **data analysis** on solar energy production in Bayern and Baden-Württemberg, utilizing **data cleaning** and **web scraping** techniques to gather relevant information, and examined factors such as tax incentives and potential solar station locations.
- Provided valuable insights to support research initiatives at Fraunhofer IAIS, contributing to the identification of key areas of study related to solar energy production in the region, leading to the initiation of new research questions and projects.

SENTIMENT ANALYSIS ON REVIEWS – Personal Project – Germany, Aachen, Link April 2022

- Utilized **Python** to perform sentiment analysis on 14,000 reviews on IMDB.
- Applied **deep learning** to produce a final model with an accuracy of 88%.

Languages

Arabic: bilingual proficiency English: Full professional proficiency German: Elementary proficiency