Fawzy Almatary

Data Scientist

Cairo, Egypt | +201069708510

fawzy.almatary@gmail.com | fawzyalmatary.com

github.com/Fawzy-Almatary | linkedin.com/in/fawzy-almatary

Statistical Analysis · Machine Learning · Deep Learning

Objective

With a dual background in data science and healthcare, I have the unique ability to combine analytical skills and Python, SQL, and data visualization tools with in-depth healthcare knowledge. I am eager to use my passion for solving complex problems and creating impactful solutions in a Data Science role that offers challenge and growth opportunities.

Skills

- **Technical Expertise:**
  - **Statistical Analysis:** Descriptive Statistics, Hypothesis Testing, Probability, Sampling Distribution
  - **Machine Learning:** Linear Regression, K-Nearest Neighbors, Support Vector Machines, Decision Tree, K-Means
  - **Deep Learning:** Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Long Short-Term Memory (LSTM), Generative Adversarial Networks (GANs)
- **Programming languages:**
  - **Python:** Pandas, NumPy, Matplotlib, Seaborn, Plotly, Statsmodels, Scikit-learn, PyTorch, fast.ai, NLTK, OpenCV
  - **SQL:** Joins, Subqueries, Common Table Expression (CTE), Recursive CTE, Window Functions
  - **SAS:** Base SAS, SAS/STAT, SAS/GRAPH, SAS/Macros, SAS/ODS, SAS/SQL
- **Additional Skills:**
  - **Multimodal Machine Learning:** Natural Language Processing (NLP), Computer Vision, Collaborative Filtering
  - **Data Analysis:** Data Cleaning, Data Manipulation, Data Wrangling, Feature Engineering, Data Visualization
  - **Interactive Visualizations:** Power BI, Tableau, JMP
  - **Microsoft Excel:** Cleaning Data, Conditional Formatting, Pivot Tables, Lookup Functions, Macros

Projects

- **2021 BRFSS Data Analysis Project:**
  - Conducted data analysis on the 2021 BRFSS dataset, a comprehensive survey on risk behaviors and health practices among adult U.S. residents, aiming to uncover valuable insights into health trends and relationships.
  - Performed preprocessing tasks to transform and optimize the data, including selecting relevant columns and making necessary changes based on the BRFSS codebook.
  - Visualizations were created to highlight relationships between different variables, providing valuable insights. Additionally, statistical analysis and hypothesis testing techniques were employed to validate findings and draw meaningful conclusions from the exploratory data analysis.
  - Developed statistical and predictive models, including a logistic regression model using statsmodel and a machine learning model using scikit-learn, to evaluate factors contributing to diabetes and predict diabetes diagnosis.
- Recipe Site Traffic for Tasty Bites Project:
  - Developed machine learning models to predict recipe popularity and website traffic on a recipe site.
  - Achieved a precision of 0.86 with a fine-tuned Logistic Regression model, representing a 43% improvement compared to the business baseline precision of 0.6.
  - Provided recommendations for recipe selection and traffic optimization based on model insights.

Certifications

- **Professional Data Scientist,** DataCamp July 2023
  - Successfully completing two timed exams and a case study practical exam. The practical exam involved a technical report and a non-technical presentation.
  - Completion of this rigorous certification program signifies mastery of diverse areas of data science, encompassing machine learning, statistical analysis, and data visualization.
  - Demonstrated proficiency in Python for data management, including expertise in various aspects such as exploratory analysis, statistical experimentation, model development, and coding.
- **Statistics with Python Specialization**, University of Michigan September 2022
  - Developed a strong foundation in statistical concepts, hypothesis testing, regression analysis, and data visualization through hands-on assignments and projects, enhancing data-driven decision-making skills in a real-world context.
  - Acquired practical and modern statistical thinking skills, including inferential procedures, statistical modeling techniques (linear and logistic regression, multilevel models, Bayesian inference), and connecting research questions to data analysis methods.
- **IELTS General Training: Band 8 - Advanced (C1 level)**, IELTS Official September 2021
  - Test Report Form Number: 21EG000453ALMF750G

Experience

- **Clinical Oncology Pharmacist**, 6th of October Hospital, Dokki, Egypt
  (June 2018 – June 2022)
  - Data Collection and Analysis: Implemented a computerized documentation system to collect and analyze data on medication errors, patient reactions, and survival rates, ensuring efficient and accurate information delivery.
  - Statistical Analysis: Conducted annual analysis of department documentation data to uncover valuable insights on medication errors, patient reactions, and survival rates, contributing to the optimization of patient care.
  - Data Visualization: Developed automated charts for monthly reports, facilitating the visualization of complex data in a visually appealing and easily understandable format to enhance treatment quality.
  - Process Optimization: Devised a comprehensive summary chart for IV admixing unit, resulting in significant reductions in preparation time and medication errors during chemotherapy treatments.

Education

- **PharmD** (Doctor of Pharmacy degree), Mansoura University Graduation: 2018
  Project: "Different strategies for HCV treatment: A Systematic Review"
  - Conducted a comprehensive systematic review on various approaches to treating Hepatitis C Virus (HCV), analyzing over 10 scientific articles from reputable journals.
  - Utilized Microsoft Excel to perform a thorough statistical analysis of the data, encompassing descriptive statistics to summarize significant findings, as well as inferential statistics like hypothesis testing to assess treatment efficacy.
  - Effectively communicated research findings to a panel of faculty members, demonstrating strong oral presentation and communication skills, as well as the ability to convey complex information in a clear and concise manner.
  - Developed skills in research methodology, data analysis, and critical thinking, which can be applied to data science.
  - Acquired valuable expertise in academic writing and citation management, strictly adhering to APA style guidelines to produce high-quality literature reviews and effectively manage references.