AMR SALAMA

DATA SCIENTIST

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Summary

Data Scientist with a strong foundation in Python, SQL, and data visualization tools. Proficient in Machine Learning, Deep Learning, and Natural Language Processing (NLP), with hands-on experience in data analysis, predictive modeling, and text processing projects. Adept at leveraging data-driven insights and advanced NLP techniques to solve real-world business challenges and drive measurable impact.

Technical Skills

Programming Languages: Python, SQL

Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Tableau

Machine Learning & Deep Learning: Scikit-learn, TensorFlow, Keras

Natural Language Processing: NLTK, SpaCy, Hugging Face Transformers (Text Preprocessing, Sentiment Analysis, Named Entity Recognition)

Version Control: Git, GitHub

Professional Experience

Freelance Data Analyst (1 Year)

- Conducted data science projects using Python, SQL, and machine learning techniques to deliver actionable business insights.

- Performed text analysis and sentiment classification for client datasets using NLP tools like Spacy and NLTK, enhancing decision-making processes.

- Visualized complex datasets with Matplotlib and Seaborn to communicate findings effectively to stakeholders.

Projects

- **Log Classification System**
Developed an NLP-based system to classify system logs using Python, SpaCy, and Scikit-learn. Applied text preprocessing and feature extraction techniques, achieving **90% accuracy** in detecting anomalies and reducing system downtime.

- **Telco Customer Churn Prediction**
Built a machine learning model using Python, Pandas, and Scikit-learn to predict customer churn. Utilized feature engineering and logistic regression, achieving **82% accuracy** in identifying at-risk customers, aiding retention strategies.

- **Fake News Detection (NLP))**
Fine-tuned a BERT-based NLP model using Python, NLTK, and Hugging Face Transformers. Achieved **85% classification accuracy** in detecting fake news articles from multiple sources.

- **Automatic Diagnosis of Sunflower Leaf Diseases**
Created a CNN-based image classification model using TensorFlow and OpenCV to diagnose sunflower leaf diseases. Achieved **88% accuracy**, enabling early detection and minimizing crop loss..

- **Face Recognition App**
Developed a face recognition system using Python, OpenCV, and deep learning. Built and trained a Siamese neural network to compare facial embeddings and identify individuals with high precision. The model was integrated into a functional app for real-time face verification.

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- **Gradient Descent Neural Network from Scratch**
Implemented a neural network from scratch in Python to explore optimization concepts and backpropagation, reinforcing core deep learning foundations without external libraries.

Education

Bachelors in Computer Information Systems (CIS)

New Cairo Institutes - Higher Institute of Computer Science and Information Systems (Currently Enrolled)

Certificates

- Python for Data Science and Machine Learning — Udemy

- Certified Python Programming Language — Issuing Organization

- **NLP and Deep Learning (Self-study)** — Codebasics (YouTube):
  Covered text preprocessing, sentiment analysis, named entity recognition, neural networks, and optimization through hands-on projects.

Additional Information

Languages: English (B1), Arabic (Native)

Soft Skills

- Time Management | Teamwork | Problem Solving | Effective Communication