Ahmed Mohsen Abdelsattar

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Education:

Zewail City of Science and Technology, 6th of October

Bachelor of Science (B.S.) - Computer Science   Sep 2023 – Jul 2027

Data science & Artificial intelligence, cGPA: 3.62   Sophomore

STEM Sharkya Secondary school   Oct 2020 – Jul 2023

One of 19 applied STEM Education institutions in Egypt, cGPA: 3.81

Technical skills:

Programming languages: Python, C++, C#, JavaScript, SQL, R
Web technologies: HTML, CSS, Dart, Flutter, Kotlin
Developer tools: Git & GitHub, Jupyter Notebook, Google Colab, Microsoft Azure, React, MySQL, Docker
Frameworks and libraries: NumPy, pandas, matplotlib, seaborn, OpenCV, BeautifulSoup, SciPy, scikit-learn, plotly, tensorflow. PySpark
Data science tools: Excel, PowerBI, Tableau

Achievements:

Egyptian Collegiate Programming Contest 2024 (ECPC) - Alexandria, Egypt   **Link to the certificate**

- Participated in the ECPC competition at the Arab Academy for Science and Technology, Alexandria, Egypt. Demonstrated exceptional problem-solving skills and teamwork abilities while competing against top talents. Gained valuable experience in algorithmic thinking, code optimization, and high-pressure performance, ranked 133 out of more than 2400 team participated.

NTI & Huawei Big data analysis internship (August 2024) – Cairo, Egypt   **Link to the certificate**

- Took part as a scholar and intern in Big data analysis internship from National Telecommunication Institute (NTI) while being officially certified as a Big data analyst from Huawei. Learning and dealing with Hadoop ecosystem with all its components like HDFS, MapReduce, Flink. Also, mastering Apache Spark with both languages python and scala, dealing with different applications of RDDs and working on the VMware virtual machine was achieved.

Digital Egypt Pioneers Initiative (DEPI) – Cairo, Egypt

- Entered in the Digital Egypt Pioneers Initiative in Data analysis and visualization track, which offered a chance to gain deep insights and make a tangible impact in Egypt's digital landscape using Microsoft PowerBI, Tableau and Excel.

Projects:

Multilingual AI Search Engine | Python, Flask   **Link to source code**

Team leader, developer: 15 March – 20 May

Built a web-based search engine with support for multiple retrieval models (TF-IDF, BM25, Word2Vec, RNN, LSTM), RM3 query expansion, voice/image search, and multilingual UI (EN, FR, DE, ZH, AR). Integrated AI assistant, favorites/history tracking, and responsive design.

Cybersecurity Anomaly detection | Python   **Link to source code**

Team leader, developer: 8 February – 10 May

Built a machine learning model for detecting and classifying cybersecurity threats in network traffic. It involves data preprocessing, feature engineering, and the implementation of various classifier models (e.g., Light, CatBoost, SVM, Neural Networks) to accurately identify both normal activity and multiple types of attacks such as DDoS, DoS, and MITM with achieving 91.8% prediction accuracy.

HR Attrition Analysis Dashboard | Excel, PowerBI   **Link to source code**

Team leader, data analyst: 5 October 2024 – 30 April

Developed an interactive Power BI dashboard to analyze HR attrition trends, uncover key drivers, and support strategic retention efforts. Collaborated with a team of 6 to clean, model, and visualize employee data using Power Query, DAX, and a star schema. Delivered insights on demographics, performance, and satisfaction, leading to actionable recommendations for reducing turnover, addressing pay equity, and enhancing employee engagement through data-driven decision-making.

Airport database management system | .Net framework, SQL Link to source code

Team leader, developer: 10 October 2024 – 5 January

Developed a database-driven Airport Management System as a team project using the .NET Framework and SQL Server, focusing on optimizing airport operations like flight scheduling, check-in, baggage tracking, and staff assignment. Designed and implemented the complete ER diagram and database schema to support system functionalities. Included role-based access for passengers, crew, and airline staff, with real-time data synchronization, ensuring accurate flight, ticketing, and personnel information across the platform.

Extracurricular activities:

- **Currently working as a Python trainer** for Mawaheb Academy teaching children aged 7 to 18 with hands-on projects.

- Worked as a **Junior Teacher Assistant (JTA)** in for "Introduction for Computer Networking" in Zewail city university in 2024.

- Earned "**Yale Young African Scholars**" scholarship in **Yale university** for 2 weeks in New York, USA in 2022.

- Reached the top 10 finalists from 1600 applicants in **UNICEF Youth Challenge 3.0** in 2022.

- Won first place in **IEEE Victoris Competition** for IOT branch with recommendation of the best IOT agricultural solution in 2022.

- Participated in **International Telecommunications Conference 2022** in Alexandria with reaching top 25 projects from 1700 teams.

- Worked as a Blood donation call center volunteer in **Resala Charity organization** to provide blood donators groups in 2022.

- **Currently working** as Marketing head in **IEEE Zewail city** and AppX'25 event with having the IEEE membership.

- Joined the **fins swimming team in Aviation Club** and achieved high records with them from 2018 to 2022.

Courses:

- **Machine Learning Specialization** from Stanford and Deeplearning.AI
- **Google data analytics** from Google
- **Google digital marketing** from Google Grow
- **Deep learning and its applications** from Digital hub and Electronic research institute

Languages:

Arabic: Fluent (Native language)

English: Fluent (C1)

German: Intermediate (B2)