

# Ahmed Azab

Data Engineer

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## ABOUT ME

Data Engineer with around 5 years of experience in designing and maintaining scalable data pipelines using Python, SQL, and cloud technologies (Azure, AWS, GCP). At LXT, I build internal data platforms and develop production-ready pipelines to support analytics and machine learning use cases. Skilled in ETL, big data processing, and modern MLOps practices. Currently pursuing a Master's in AI & Data Science at Czestochowa University of Technology. Passionate about creating impactful data-driven solutions and continuously growing through hands-on engineering, research, and teaching.

## EXPERIENCE

### LXT | DATA ENGINEER

Jan 2024 – Present | Full time | Remote

- Lead the development of internal tools, including a Streamlit platform that reduced support requests by 40% and empowered non-technical users with data access.
- Design, build, and maintain scalable data pipelines using Airflow and Mage on GCP, handling structured and unstructured data for analytics and ML workflows.
- Collaborate closely with cross-functional teams (annotation, QA, DevOps) to align technical solutions with business objectives.
- Drive Python-based ETL frameworks and uphold best practices to ensure efficiency, reliability, and data quality.
- Provide technical mentorship, conduct code reviews, and contribute to architecture decisions and internal tooling strategies.
- Support strategic planning and delivery across multiple data projects, ensuring high performance and continuous improvement.

### DIGITAL EGYPT PIONEERS INITIATIVE - DEPI | SESSION LEAD & INSTRUCTOR (DATA ENGINEERING, DATA SCIENCE)

Apr 2024 – Present | Part-time | Cairo, Egypt | Remote

- Lead structured training sessions in AI, Data Science, and Cloud Technologies, bridging academic learning with real-world applications. , tailored to over 2000 students with diverse professional aspirations.
- Teach SQL, Python, Data Engineering, MLOps (MLflow, Hugging Face), and Machine Learning.
- Deliver Data engineering, Data Science courses covering Data Science Methodology, Databases & SQL, Data Analysis, Machine Learning, and MLOps.
- Mentor students, providing hands-on projects, industry case studies, and AI-driven problem-solving approaches.
- Foster a dynamic learning environment by integrating real-world AI applications and cutting-edge technologies.
- Currently preparing a YouTube channel focused on Data Engineering and AI education to extend reach and contribute to the tech learning community. Launching in April 2025.

### PRICINGONE | DATA ENGINEER

Dec 2022 – Dec 2023 | Full time | Egypt

- Expert in ETL processes and Data Warehouse modeling using Python and SQL, optimizing data integration and storage solutions.
- Utilizing ADF (Azure Data Factory) and Python-based web scraping tools like Selenium and Scrapy to extract data from diverse sources.
- Developing automated data cleansing pipelines with Python and Azure Databricks to enhance data quality and efficiency.
- Designing robust data models and schemas using SQL on Azure SQL to fulfill both functional and non-functional product requirements.
- Efficiently managing data across multiple platforms including Azure SQL and Azure Blob Storage.
- Specializing in time series analysis and forecasting with Python, leveraging advanced techniques to drive predictive insights.

## CORELIA | DATA SCIENTIST

Apr 2022 - Oct 2022 | Full time | Egypt

- Enhanced technical support team performance through an NLP-based ticket distribution system, built with Python and SQL, significantly reducing ticket assignment time.
- Led data extraction initiatives using Python-based web scraping tools like Selenium and BeautifulSoup to collect vital operational data.
- Designed and maintained end-to-end data pipelines using Python and SQL to power an efficient ticketing system, improving support response times and overall customer satisfaction.

## UPWORK | DATA SCIENCE FREELANCER TOP RATED

Oct 2021 - Apr 2022 | Freelance

- Completed various data science projects, generating over \$5,000 in revenue.
- Developed an automated data collection script, expediting website transformation and boosting company profits.
- Implemented machine learning solutions in Matlab projects and executed numerous web scraping assignments.
- Maintained a perfect 5/5 rating across all projects, reflecting exceptional quality and client satisfaction.
- Achieved a 100% Job Success Score (JSS), demonstrating consistent delivery of top-tier results and reliability.

## CORPORATICA | MACHINE LEARNING INTERN

Dec 2021 - Feb 2022 | Full time | Remote

- Focused on the design and development of machine learning and deep learning systems.
- Contributed to the creation of a chatbot by preparing and collecting data.
- experience working with AWS services.

## HIGH INSTITUTE OF ELECTRONIC ENGINEERING, BELBIS | TEACHING ASSISTANT

Oct 2020 - June 2021 | Full time | Egypt

- Assisted in teaching undergraduate courses in Computer Engineering, focusing on programming.
- Conducted lab sessions, providing hands-on guidance in data structure, digital logic design, and operating systems.
- Developed course materials, practical assignments, and assessments to reinforce theoretical concepts.
- Provided academic support and mentorship to students, assisting with coursework, projects, and exam preparation.
- Led tutorial sessions, simplifying complex engineering topics and enhancing students' problem-solving skills.
- Collaborated with faculty to improve course structure and integrate industry-relevant technologies.

## SKILLS

### TECHNICAL SKILLS

Programming Languages

- Python 3

Frameworks

- Flask • Dash • PySpark

Database

- PostgreSQL • MySQL • Azure SQL

Web scraping

- Selenium • BeautifulSoup • Scrapy

Other

- Streamlit • MLflow • Hugging Face
- Git • Linux • Content creation

Familiar

- C • Java • NoSQL

### MACHINE LEARNING SKILLS

- TensorFlow • OpenCV • NLTK
- SKlearn • Matplotlib • Pandas
- Numpy • seaborn • Plotly
- ML Matlab

### CLOUD SKILLS

- Azure • Synapse • Data factory
- Databricks • Virtual machines • blobs
- AWS • EC2 • Sagemaker
- GCP

## CERTIFICATIONS

- Huawei HCIP - Big Data Developer V2.0  
Certificate ID: 010201801855810030411409  
Covers HDFS, Hive, Spark, Kafka, Flume, Loader, YARN, Oozie, Flink, Kerberos, and Big Data architecture.

Apr 2025 – Apr 2028

## EDUCATION

**MASTER IN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE** Częstochowa, Poland  
FEB 2025 – PRESENT | CZEŚTOCHOWA UNIVERSITY OF TECHNOLOGY

**INFORMATION TECHNOLOGY INSTITUTE (ITI) | AI PRO PROGRAM – 9 MONTHS**

Sept 2021 | Nasr City, Egypt

Joint program with EPITA (École Pour l'Informatique et les Techniques Avancées), France

**BACHELOR OF ENGINEERING | MONOFIYA UNIVERSITY**

Graduated May 2020 | Monofiya, Egypt

Bachelor of Electrical and Computer Engineering

## PROJECTS

- Internal Streamlit Tool for Data Transformation (LXT) – Built a user-friendly app using Python and GCP that enabled non-technical users to handle data loading and validation, reducing support tickets by 40%.
- Big Data ETL Pipeline (PricingOne) – Developed scalable ETL workflows with PySpark and Azure Databricks, improving data readiness and analytical turnaround.
- Time Series Forecasting for Pricing Strategy (PricingOne) – Created forecasting pipelines with Python and SQL to predict key product pricing metrics, supporting business decisions.
- NLP-based Ticket Classifier (Corelia) – Implemented a Python and SQL-driven system to automatically assign support tickets, cutting manual triage time significantly.
- Web Scraping Projects (Various) – Designed and maintained data scraping pipelines using Selenium, Scrapy, and BeautifulSoup for multiple business use cases.
- Football Player Dashboard – Built an interactive dashboard using Dash and Plotly to visualize player performance metrics for analytical reporting.
- Multiclass Classification with Matlab – Developed machine learning models to tackle complex multiclass classification problems.
- Seoul Bike Rental Prediction – Applied regression models (LR, RF, SVR) to predict rental demand using weather and seasonal data.
- Adagrad, RMSProp, Adam Algorithms – Recreated optimization algorithms from scratch in NumPy to reinforce understanding of deep learning techniques.
- Bar Chart Race Visualizations – Created animated data stories using bar chart race visuals to present historical trends engagingly.

## VOLUNTEERING

- IEEE – Member of the Robotics and Automation team, contributing to hands-on technical projects and workshops.
- AIESEC Egypt – Worked with the Incoming Global Volunteer (IGV) program to facilitate international volunteering and cross-cultural exchange.
- Lifemakers Foundation – Participated in community development initiatives and youth empowerment activities.
- Students' Union – Engaged in student representation and organizing campus-wide events and academic support programs.

## ADDITIONAL INFORMATION

### LANGUAGE

Native:

Arabic

Fluent:

English

### DATE OF BIRTH

October 1, 1997