

# MOSTAFA ABUZAHR

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## Education

### German International University

Bachelor of Science in Computer Science

1.57 German GPA - 3.6 GPA ECTS

– Recipient of the **DAAD Excellence Award** for outstanding academic performance

Sep. 2022 – Jun. 2026

New Administrative Capital, Egypt

## Certifications

### AWS Certified Cloud Practitioner

Amazon Web Services

May 2025

## Technical Skills

**Languages:** Python, Java, C, C++, SQL/noSQL, TypeScript, JavaScript, GO

**ML/DL:** Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, OpenCV

**Web Dev:** Node.js, React.js, Express, Next.js, Nest.js

**Databases:** MongoDB, MySQL, PostgreSQL

**Tools:** AWS, Docker, Kubernetes, Linux, Git, GitHub, VS Code, Jupyter, Power BI

**Visualization:** Matplotlib, Seaborn, Tableau

## Experience

### AutoPulse

Full-Stack - AI Engineer (Full-time)

- Co-built an internal CRM system covering customer onboarding, ticketing, and pipeline tracking.
- Designed and developed the public landing page end-to-end (information architecture, UI, deployment).
- Developing a chatbot and AI features for the mobile application to enable self-service and intelligent insights.

Aug. 2025 – Present

Cairo, Egypt

### Cloud Engineer Intern

Mideast Communication Systems

- Enhanced an open-source application, dockerized it, and deployed on AWS.

Jul. 2025 – Present

Cairo, Egypt

### Database Administrator Intern

National Bank of Kuwait

- Optimized query performance by 15% through indexing strategies; Monitored DR server performance using Tableau

Aug. 2024 – Sep. 2024

Cairo, Egypt

## Research & Publications

### Talent Vision AI: Data-Driven Football Scouting Framework

Accepted, In Press

- Co-authored research applying DBSCAN clustering and visual analytics for professional football scouting
- Engineered an end-to-end data pipeline with web scraping and interactive dashboards featuring radar charts for actionable insights

## Projects

### Wellness360 – Full-Stack Fitness Tracker

Next.js, NestJS, MongoDB, Docker

Jun. 2025

- Engineered a full-stack fitness platform (Next.js/NestJS) featuring a Gemini AI chatbot for personalized recommendations, secured with Google OAuth, and deployed via a Dockerized CI/CD pipeline.

### AWS Task Manager

AWS CDK, Next.js, TypeScript

May 2025

- Architected a serverless backend with AWS CDK; Integrated RDS, Lambda, API Gateway, S3, Cognito, and SQS
- Crafted a responsive Next.js frontend with secure authentication and scalable task management features

### Sports AI Platform

Python, FastAPI, React, Chart.js

AI League Hackathon, Apr. 2025

- Implemented a FastAPI backend featuring clustering algorithms (DBSCAN, GMM, K-Means) for player performance analysis
- Designed React frontend with interactive visualizations for cross-league performance analytics

### Semi-Supervised Heart Disease Prediction

Python, Scikit-learn

Mar. 2025

- Devised clustering algorithms for label inference; Trained ensemble models achieving 92% accuracy
- Conducted comprehensive EDA and feature engineering to maximize predictive performance

### Olympics Data Visualization

Power BI, DAX

Dec. 2024

- Integrated Paris 2024 datasets; Created interactive dashboards with advanced DAX measures and slicers

### Database Query Optimization

PostgreSQL, pgAdmin

Dec. 2024

- Enhanced 24 complex queries with strategic indexing, boosting performance by up to 40%