

MOSTAFA ABUZAHRA

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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

Databases: MongoDB, MySQL, PostgreSQL

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

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

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

Visualization: Matplotlib, Seaborn, Tableau

Experience

AutoPulse

Full-Stack - AI Engineer (Full-time)

Aug. 2025 – Present

Cairo, Egypt

- 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.

Cloud Engineer Intern

Mideast Communication Systems

Jul. 2025 – Sept. 2025

Cairo, Egypt

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

Database Administrator Intern

National Bank of Kuwait

Aug. 2024 – Sep. 2024

Cairo, Egypt

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

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

Jun. 2025

- Next.js, NestJS, MongoDB, Docker
- 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

May 2025

- AWS CDK, Next.js, TypeScript
- 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

AI League Hackathon, Apr. 2025

- Python, FastAPI, React, Chart.js
- 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

Mar. 2025

- Python, Scikit-learn
- 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

Dec. 2024

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

Database Query Optimization

Dec. 2024

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