

Abdallah Bakr

Data Scientist

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SUMMARY

Abdallah Bakr is a visionary technologist with a unique blend of expertise in programming, automation, and engineering. Driven by a passion for innovation, he masterfully integrates data science and machine learning to revolutionize business workflows. Abdallah's solutions don't just optimize processes—they redefine possibilities, setting new benchmarks for efficiency and innovation in the industry.

PROFESSIONAL EXPERIENCE

Data Scientist Kaggle Contributor	10/2024 –present
<ul style="list-style-type: none">Designed machine learning models for data-driven decision-making.Built Python applications for data preprocessing, analysis, and visualization.Developed APIs for seamless integration between software components	Cairo, Egypt
Computational Designer @ CONIX.AI	01/2023 –10/2024
<ul style="list-style-type: none">Developed a .NET Core API to handle the files between all programs.Built a generative floor plan using Genetic Algorithm and open-source libraries.Created Grasshopper plugins for automating floor plans and façade design.Developed a .NET library for geometry tasks across architectural programs.Automated generation of design files and Revit models.	Cairo, Egypt

EDUCATION

Kaggle: 5-Day Gen AI Intensive Course by Google	2024 - 2025
Coursera: IBM Data Science Professional Certificate	2024 - 2025
Coursera: Stanford Machine Learning Specialization	2023 - 2024
Bachelor's Degree in Architectural Engineering, Fayoum University, GPA: 3.0	2015 - 2020

PROJECTS

RAG Application	12/2024 – 1/2025
<ul style="list-style-type: none">Developed a RAG application using Python, FastAPI, SQL, and MongoDB.Integrated vector databases for semantic search and retrieval.Built APIs for seamless system integration and outputs.Automated workflows for preprocessing, retrieval, and generation.Optimized performance for large datasets and fast responses.	
Automation Work Flow @ CONIX.AI	06/2023 – 10/2024
<ul style="list-style-type: none">Developed an end-to-end automated workflow for CONIX AI website users.Processed project data via .NET Core API using genetic algorithms for zoning.Automated generation of design files (PDF, SVG, DWG)Uploaded outputs to AWS S3 for seamless frontend access.	

- Led the creation of a Genetic Algorithm solution for optimizing floor plan zoning.
- Automated design processes using C# and open-source libraries, reducing manual work.
- Integrated Rhino3dm for flexible design systems and developed APIs for integration.

Technical SKILLS					
• Python	• Tensorflow	• Panda	• Numpy	• FastAPI	• SQL
• LangChain	•	•	•	•	•
• C#	• Git	• Javascript	• Nextjs	• HTML	• CSS

SOFT SKILLS	
• Creative problem-solver.	• Skilled in managing projects independently.
• Strong communication and teamwork abilities.	• Adaptable to new tasks and technologies.

LANGUAGES	
Arabic: Native Speaker.	English: Fluent.

References available on request