

Mohamed Sakr

Talkha, Mansoura, Egypt
+20 100 925 2592 | mo.sakr1400@gmail.com
[linkedin-mohamed-sakr](#)

PROFESSIONAL SUMMARY

Computer Engineering student passionate about Artificial Intelligence, Machine Learning, and Data Analytics. Founder of Sakr Makes, a personal engineering initiative focused on AI, robotics, embedded systems, and product development. Experienced in developing machine learning models, software applications, and intelligent robotic systems using Python, C++, SQL, and Scikit-learn. Vice Chairman of the IEEE MET Computer Society Chapter with proven leadership, teamwork, and problem-solving skills. Eager to leverage AI and data-driven solutions to solve real-world challenges.

EDUCATION

[misr higher institute for engineering and technology

[Mansura], [Egypt]

Bachelor of Engineering in Computer Engineering

Expected [July 2027]

- Overall Grade: Excellent
- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Machine Learning, Artificial Intelligence, Computer Vision, Operating Systems, Computer Networks, Software Engineering

TECHNICAL SKILLS

Programming: Python, C++, C, SQL, JavaScript

Machine Learning: Scikit-learn, Pandas, NumPy, OpenCV, Matplotlib, EDA, Feature Engineering, Classification, Regression, Clustering, Cross-Validation

Databases: SQL Server, MySQL, Database Design, SQL

Software Engineering: OOP, Data Structures & Algorithms, Design Patterns

Embedded Systems: ESP32, Arduino, Computer Vision

Tools: Git, GitHub, VS Code, Visual Studio, Jupyter Notebook, Google Colab

CAD: Fusion 360, Cura, 3D Printing

Operating Systems: Linux, Windows

- **Languages:** Arabic (Native), English (B2)

LEADERSHIP & ACTIVITIES

IEEE MET Computer Society Chapter

Vice Chairman | 2025 – Present

- Led technical events, workshops, and student initiatives.
- Coordinated teams and organized AI, robotics, and programming activities.

ICPC Community

Volunteer & Programming Mentor | 2024 – Present

- Mentored students in C++, algorithms, data structures, and competitive programming.

PROJECTS

Insurance Cost Prediction using Machine Learning

- Developed regression models using Python, Scikit-learn, Pandas, and NumPy to predict insurance costs.
- Performed data preprocessing, feature engineering, and exploratory data analysis (EDA).
- Evaluated model performance using RMSE, R^2 , and Cross-Validation.

Weather Prediction using Machine Learning

- Developed machine learning models for temperature prediction using Python and Scikit-learn.
- Performed data cleaning, feature engineering, and model evaluation.
- Visualized and analyzed results using Matplotlib.

Autonomous Water Surface Cleaning Robot | Feb 2025 – Present

- Designed and developed an autonomous robot for water surface waste collection.
- Designed the mechanical system using Fusion 360 and integrated ESP32-CAM, sensors, and embedded hardware.
- Participated in prototyping, assembly, testing, and system validation.

Database Management System

- Designed and implemented a relational database using SQL Server.
- Developed normalized database schemas, relationships, and complex SQL queries.
- Built a database-driven application for efficient data management.

Bank Management System

- Developed a banking system using C++ and Object-Oriented Programming (OOP).
- Implemented account management, authentication, transactions, and file handling.
- Applied modular software design and data structures.

Smart Wheelchair

- Designed and developed a smart wheelchair prototype using Arduino, sensors, motors, and joystick control.
- Built, assembled, and tested the complete hardware prototype.

CERTIFICATIONS

- NVIDIA – Generative AI
- NVIDIA – Large Language Models (LLMs)
- Huawei – Machine Learning
- Information Technology Institute (ITI) – Artificial Intelligence & Python
- National Telecommunication Institute (NTI) – Artificial Intelligence & Machine Learning
- HackerRank – Python (Basic)
- ICPC – Problem Solving Training
- Autodesk – Fusion 360