

Ali Ahmed Khalil

Junior Python Developer | Data Analyst | AI Enthusiast

Contact Information

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Professional Summary

Python Developer specializing in data-driven applications using SQL, TCP networking, and AI fundamentals. Built **5 technical projects** including a real-time chat system supporting 50 concurrent users and AI-powered applications. Possesses **4 years of leadership and team management experience** and is committed to leveraging technology for social impact. Seeking a challenging role to apply technical expertise in a competitive tech environment.

Technical Skills

Category	Skills
Programming	Python (Advanced), JavaScript, C++
Data & AI	Data Analysis, AI Fundamentals, Data Visualization, Machine Learning Concepts, Prompt Engineering
Networking & DB	TCP Sockets, Threading, SQL, Database Design
Tools & Platforms	Microsoft Office, AutoCAD, Arduino, Termux, Git/GitHub

Professional Experience

Instructor (Part-Time)

- Future Academy (Degla Club Branch) | **August 2024 - September 2024**
- **Delivered training** to children on fundamental programming concepts, including:
 - Game development using **Python**.
 - Web development basics using **HTML and CSS**.
 - Robotics and project construction using **Arduino**, covering physics concepts like transistors, transformers, and resistors.

Independent Technical Projects

1. Production-Level: Real-Time Multi-User Network Chat System

- **Engineered and deployed** a real-time chat application supporting **50 concurrent users** with high efficiency, utilizing **Python** and **TCP Sockets**.
- **Optimized performance** by implementing a **Threading** architecture to manage simultaneous client connections.

- **Enhanced user experience** by designing a feature to display the last **10 messages** to new users, ensuring conversation continuity.
- Designed a comprehensive command system (`/list` , `/msg` , `/quit`) and a colored interface (**Colorama**).

2. IoT Project: Simple Pendulum with Smart Technology

- Developed an **IoT-integrated** simple pendulum system using **Arduino, LDR, and Laser** components.
- Successfully **integrated hardware and software** to collect and analyze real-time data, showcasing skills in embedded systems and data acquisition.

3. Employee Management System

- Built a scalable **Employee Management System** using **JavaScript** and **Object-Oriented Programming (OOP)** principles, focusing on modular design for future feature expansion.

4. Drug Information System

- Created a functional **Drug Information System** as a database project, demonstrating expertise in **SQL querying** and relational database design for managing vital information.

5. SmartPharmacy Application and Web

- Contributed to the **SmartPharmacy** project, focusing on **AI/ML integration** for automated medical prescription scanning and **OCR analysis**, aiming to improve data accuracy and processing speed.

Leadership and Community Engagement

Parliamentary Leader & Event Coordinator

- Pioneers Parliament & Ministry of Youth and Sports, Cairo | July 2020 - Present
- **Demonstrated 4 years of leadership and team management** by leading youth empowerment initiatives and coordinating major national events.
 - **Achieved** the position of **First Deputy Speaker (2023-2024)**, showcasing exceptional **public speaking and leadership skills**.

- **Coordinated and executed** numerous major national events, including the **54th** Cairo International Book Fair.
- **Completed 100 volunteer hours** in psychological support and art workshops at Children’s Cancer Hospital 57357, demonstrating strong commitment to community service.

Education

Bachelor of Science in Data Science and Artificial Intelligence

- Elsewedy University of Technology
- **September 2023 - September 2027**

Certifications and Training

Category	Certification/Training	Year
AI & Machine Learning	AI Prompt Engineering Frameworks	2024
	Introduction to Generative AI Learning Path	2024
	AI for Beginners	2024
Data Science	Data Science and Analytics Training	2025
IoT & Hardware	Introduction to IoT	May 2025
Cybersecurity	Introduction to Cybersecurity Awareness	2023
Soft Skills	Value Training	2024
Volunteerism	Certificate of Completion: 190 Volunteer Hours	2023
	Certificate of Completion: 48 Volunteer Hours	2023