Shehab Diab

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[LinkedIn](#) [Github](#) [Datacamp](#) [Kaggle](#) [Leetcode](#)

Professional Experience

Geospatial Data Science Intern - *HERE* **Eindhoven, Netherlands (Remote)** *11/2024 - 12/2024*
- Worked with Spatial Analytics and Engineering Solutions Team to make AI based solutions in navigation systems.
- Processed probe data to clean and visualize the data and extract features.
- Organized workflows and tracked progress with Jira.

Business Intelligence Intern - *ACT* **Smart Village, Egypt** *08/2024 - 09/2024*
- Learnt Data Warehousing for efficient data reading.
- Learnt Advanced SQL with MSSQL Server, Including: Ranking Functions, T-SQL, Constraints, Rules, Loops, Views, Indexing, Stored Procedures, Triggers, Restores, Backup, Mirroring, SQLCLR.
- BI Tools for ETL and Data Analysis, Including: SSAS, SSIS, SSRS, Power BI, DAX, Tableau.
- Worked on a hospitality restaurant POS Data project, went through ETL, Data Modeling, Dashboard with Power BI.

Activities and Achievements

AI Agent Hackathon Winner in Stakpak Hackathon - *Stakpak* **Cairo, Egypt** *2025*
- My team and I received the Best AI Agent Award for developing a Software Document Enhancer Agent.

ALX Arabia AI-Driven Hackathon - *ALX Arabia* **Cairo, Egypt** *2025*
- Reached Top 7 out of 111 students and graduates, developed a Medical RAG system to recommend natural herbs and wellness tips to reduce the misuse of chemical drugs.

Orange Business AI Hackathon Participant **Cairo, Egypt** *2025*
- Built a chatbot to improve customer support, competed with various universities to create and implement new business ideas.

Geospatial AI Hackathon Winner - *HERE* **Cairo, Egypt** *2024*
- Achieved first place in a hackathon organized by HERE Technologies, focusing on geospatial data in AI and data science.

Guest Speaker for Programming course in Cairo university **Cairo, Egypt** *2024*
- Spoken on multiple topics about what to do and not do during college, covering both technical and life aspects.

Content Creator for Educational Videos **Cairo, Egypt** *2021-Present*
- Created and shared educational videos on topics like C++ and Machine Learning, targeting peers and younger students to simplify complex concepts and provide learning resources.

ECPC Qualification Contestant **Cairo, Egypt** *2021*
- Ranked in the Top 20% out of 300+ teams in a college-wide problem solving competition.

Education

BSc Computer Science, AI Major *Cairo University* **Cairo, Egypt** *2021-2025*

Relevant Courses: Software Engineering, Database, Web Development, Machine Learning, Supervised Learning, Signals & Systems, Discrete Math, Linear Algebra & Calculus, Statistics, Algorithms & Data Structures, OOP.

Projects

AI Mutabie Discord Bot - **GitHub** *Personal Project*
- AI-Mutabie-Discord-Bot is a deployed to-do list rule-based chatbot to help you manage your weekly tasks. With functionalities including task management, profile management, weekly reminders, and weekly penalties for incomplete tasks.
- **Using**: Python, discord.py, Deployed on EC2, SQLite3, DB Migrations, Docker, Automatic Deployment with Github Actions.

Flight Reservation System Application - **GitHub** *University Assignment*
- Users have accounts and can Search/Book/Manage flights, and Admins can Create/Modify/Cancel flights and aircrafts.
- **Using**: C#, WinForms, and MS SQL server, Regex, Stored Procedures.

Evolutionary Computation Algorithms - **GitHub** *University Assignment*
- Solved Travelling Salesman Problem using Ant Colony Optimization, trained a Genetic algorithm to play Tetris on its own.
- **Using**: NumPy, Pandas, Matplotlib, Seaborn, Pygame, Manim.

Rice Type Detection Project - [Kaggle]   *Personal Project*
- Classifying 5 different types of rice, image dataset pre-processing, Implementing/Training 7 CNN models from scratch.
- **Using**: TensorFlow, NumPy, Pandas, Matplotlib, Seaborn, CNNs.

Data structures/Sorting Library - [GitHub]   *Personal Project*
- Library Contains: Custom Vector with Allocators, Singly, Circular, Doubly Linked List, (Min-Max Heap), BST and AVL Tree.
- **Using**: C++ Applying Move semantics, std::allocators.

Courses & Certifications

- Digital Egypt Pioneers Program – Microsoft AI Machine learning Engineer (Oct. 2024) - [DEPI]
- Huawei ICT Academy Course – Training in Artificial Intelligence (Sept. 2023) - [Huawei]
- Machine Learning Specialization by Andrew NG. - Stanford University & Deeplearning.AI. (Ap. 2024) - [Coursera]
- CS50x 2021 Harvard Course – Introduction to Computer Science by David Malan. (Feb. 2022) - Self-Study
- CS106B Stanford Course – Programming abstractions By Julie Zelenski. (Aug. 2022) - Self-Study
- Data Analysis Track – Datacamp Data Analysis. (Currently studying)

Skills

- **Programming Languages:** C++, C#, JS, Python
- **Web & Mobile Applications:** HTML, CSS, JS, Bootstrap, Django, Flutter
- **Database:** MS SQL Server, SQLite3
- **Business Intelligence:** Data Warehousing, ETL, Tableau, SSAS, SSIS, SSRS, Data Modeling, Power BI, DAX
- **AI Knowledge:** Prolog, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch, SciPy, ANNs, CNNs, RNNs, LSTMs, Transformers, MLFlow, RAG, Langchain, FAISS, ChromaDB, Milvus, unsloth.
- **Version Control:** Git, GitHub, DagsHub
- **Other:** Docker, AWS EC2, DagsHub, Microsoft Azure, Regex, SOLID Principles, OOP, Design Patterns, Database design, Data Warehousing, Software Design, Algorithmic thinking, Verilog, Problem solving, Excel, Power Point, Word.

Languages

Arabic [Native]   **English** [Intermediate]   **German** [Basic] A1