




Ahmed Abdelaziz

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Profiles

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Education

Cairo University

Oct 2022 - Present

Artificial Intelligence

Computer Science and Artificial Intelligence

3.42

 [Cairo University](#)


Relevant Courses: Database I , Software Engineer , Web Development , Data Structure , Object Oriented Programming , Structured Programming

Projects

Country Gross Domestic Product

Aug 2024

Developed a robust Python-based ETL pipeline to process GDP data for 195 countries.

 [Country GDP](#)

- Efficiently extracted accurate GDP data from Wikipedia with a 98% success rate using web scraping techniques.
- Transformed raw GDP data from millions to billions USD for comprehensive analysis.
- Implemented high-performance loading of processed data into both CSV and SQLite database formats.
- Established a robust logging mechanism to track and monitor 7 critical ETL stages.
- Leveraged pandas and BeautifulSoup libraries for efficient data manipulation and extraction.

Image Filter

Jun 2024

Created a C++ program to manipulate 256x256 images using a comprehensive set of 14 image processing functions.

 [Image Filters](#)

- Implemented color transformations, including 2 inversion , Black and white conversion and color inversion.
- Performed geometric manipulations such as flipping (horizontal and vertical), rotation (up to 360 degrees), scaling (enlargement and shrinking by factors of 2x, 4x, and 0.5x), and mirroring.
- Applied image filters like blurring and edge detection (Sobel kernels detector).
- Developed image merging, shuffling, cropping functionalities and 3 other filters .

Library Management System

May 2024

Designed a Python-based library management system to streamline library operations.

 [LMS](#)

- Defined core functionalities for book management (issue/return, cataloging), user management (registration, authentication), and system administration.
- Enhanced efficiency through automation of routine tasks such as overdue notices and book renewals.
- Created a user-friendly interface between 6 - 8 intuitive navigation options and 2 - 1 data input fields.
- Designed a user-friendly GUI allowing users to perform any image manipulation task within 2 clicks.
- Ensured data integrity and security with robust data handling practices and secure login authentication.
- Leveraged SQL database to efficiently store and manage library records.
- Demonstrated proficiency in Python programming, database design, and user interface development.

Skills			
Technical Writing		Agile Methodology	
Design Patterns		SOLID principles	
Object-Oriented Analysis and Design		Software	
		Git & Github, Microsoft SQL Server , LinuxOS , Anaconda	
Areas of Expertise			
C++	Python	SQL	
HTML	CSS	Java Script	
Django	Java		
Certifications			
Machine Learning with Python	Sep 2024	Numpy for Data Science	Jun 2024
🔗 Coursera		Machine Learning Plus	
		🔗 ML+	
Mathematics for Machine Learning: Linear Algebra	Jan 2024	ECPC	Jul 2023
Imperial College London		Egyptian Collegiate Programming Contest	
🔗 Coursera			
Languages			
Arabic		English	
Native		B2	