

# Mohamed Mahdy Zain-Elabdeen

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## ✓ Education

### Computer science and information technology

*Helwan National University*

2023 – 2026

## ✓ Projects

### Sales Performance Dashboard (Power BI)

- Collected, cleaned, and transformed raw sales data using Power Query.
- Created dynamic visualizations for KPIs such as total revenue, sales growth, and top-performing products.
- Implemented slicers and filters for real-time data exploration by region, sales team, and product category.

### ERP Sales Data ETL Pipeline (SSIS)

- Utilized SQL Server Integration Services (SSIS) to extract, transform, and load (ETL) sales data from multiple ERP-related tables and external sources (databases, Excel files, and flat files).
- Performed data cleaning, transformation, and validation to ensure data accuracy, consistency, and reliability across ERP datasets.
- Automated data integration workflows and scheduled SSIS packages to load data into the SQL Server data warehouse, improving efficiency and reducing manual effort.

### University Exams System (Python)

- Handled exam scheduling, user authentication, real-time grading, and results display.
- Applied Python's data handling capabilities to manage user records and exam data.

### Connect 6 AI Agent (Python – Tkinter)

- Developed a GUI-based Connect 6 game in Python with AI vs Human gameplay.
- Implemented Minimax with Alpha-Beta pruning and custom heuristics like block threat and open-three evaluation.
- Applied symmetry detection and heuristic reduction techniques to optimize AI performance.

## ✓ Experience

### Business Intelligence & Data Science Intern

06/2025 – 09/2025

*Microtec International*

- Analyzed business datasets using ETL techniques to extract, transform, and load data.
- Applied statistical methods and data preprocessing to prepare data for analysis.
- Conducted data visualization and reporting to support business intelligence insights.
- Strengthened skills in Python (Pandas, NumPy, Matplotlib, Scikit-learn) and SQL for data manipulation and analysis.

### Artificial Intelligence & Machine Learning Diploma

*Route IT Training Center*

- Learned Python, OOP, Linear Algebra, Data Preprocessing, and Data Analysis.

- Gained hands-on experience with machine learning and deep learning models.
- Worked on projects involving AI applications and predictive analytics.

## ✓ Skills

### **Data Visualization & Reporting**

- Building dashboards and reports in Power BI
- Creating KPIs and interactive visuals

### **Data Preparation**

- Power Query (data cleaning, merging, appending)
- ETL basics (Extract, Transform, Load) using python
- Handling missing values, duplicates, and formatting

### **Databases & Tools**

- SQL (basic SELECT, JOIN, filtering)
- Excel (PivotTables, VLOOKUP, advanced formulas)
- Python (Pandas, NumPy)

### **Technical Skills**

- **Programming Languages:** C, Python, Java, SQL
- **Web Development:** HTML, CSS, JavaScript
- **Tools & Technologies:** JavaFX, Tkinter, Cisco Packet Tracer
- **Concepts:** Object-Oriented Programming (OOP), Front-End Development, Data structure, Algorithms, Artificial Intelligence, Network Design & Simulation.

### **Soft Skills**

- Analytical thinking & problem solving
- Attention to detail
- Clear communication of insights
- Teamwork & collaboration
- Time management
- Adaptability & fast learning
- Data-driven decision making