

# Omnia Mahmoud Bakry

Front-End Engineer

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## Summary

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Computer Science graduate with a passion for front-end development and web design. Skilled in creating responsive, user-friendly websites using modern technologies. Interested in design, problem-solving, and integrating innovative ideas to build engaging digital experiences.

## Education

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Faculty of computer and Artificial intelligence | Fayoum University, Fayoum, Egypt (2020 - 2025) | CGPA: 3.13.

## Technical Skills

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|----------------------|--|-------------------------|
| • Time management    | • Embedded systems   | • Compiler construction |
| • Teamwork           | • Programming Languages (C++, Python, HTML, CSS, JavaScript) | • Machine learning      |
| • Project Management | • Object-Oriented Programming (OOP)                          | • Parallel computation  |
| • Problem Solving    | • Algorithms   | • Network               |
| • Computer Science   | • Data Structures  | • Leadership            |
| • VS Code            |  | • presentation          |
| • Web Development    |  | • Logic Design          |

## Projects

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### Online Shopping Web Application

- Tech: Angular, Node.js, HTML, CSS, TypeScript
- Objective: Developed a responsive e-commerce web app with dynamic product browsing, navigation, and interactive UI using Angular components and data binding.

### Flutter Mobile Application

- Tech: Flutter, Dart, GitHub, Figma
- Objective: Created a cross-platform mobile app with clean UssI/UX and efficient navigation, focusing on practical Flutter development and teamwork.

### Data Analysis using Power BI & Python

- Tech: Power BI, Python, Pandas, Matplotlib, Seaborn
- Objective: Conducted full ETL and visualization workflows, integrating Power BI dashboards and Python scripts to uncover insights and trends.

### Full Compiler Implementation using FLEX & BISON

- Tech: C, FLEX, BISON, GCC
- Objective: Built a complete compiler including lexical/syntax analysis, symbol table, syntax tree, and target code generation.

### Image Processing Toolbox (MATLAB)

- Tech: MATLAB
- Objective: Implemented a toolbox for digital image enhancement techniques like filtering, edge detection, and morphological operations.

## Embedded System Project

- Tech: Microcontroller, LCD, Keypad, Embedded C  
Objective: Designed a system to sort user-entered numbers, displaying results on LCD and seven-segment displays with timed transitions.

## Arabic App Reviews Sentiment Analysis

- Tech: Python, pandas, scikit-learn, NLTK, Word2Vec
- Objective: Built a sentiment analysis system for Arabic app reviews (~40K entries) using ML and DL models to classify sentiments and compare performance across algorithms.

## Handwritten Digit Recognition

- Tech: Python, scikit-learn, NumPy, Pandas, Matplotlib
- Objective: Implemented and compared multiple ML algorithms (Neural Network, Logistic Regression, Naive Bayes) for handwritten digit recognition using the DIDA dataset.

## Hub-and-Spoke Cloud Network on Azure

- Tech: Microsoft Azure, PowerShell, Azure CLI, IIS
- Objective: Designed and deployed a secure Hub-and-Spoke cloud topology with VNets, NSGs, and monitoring tools, optimizing cost and performance.

## Certifications and Experience

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- ITI (Front End Web Development) July 2024
  - Front End Web Development using Angular
  - Client – side Technologies
  - ES.Next
  - HTML5
  - Bootstrap
  - Angular
- Itida – creativa – tiec - Fayoum University – Workshop October 2024
  - Introduction to Digital marketing
- AIRG (Artificial Intelligence Research Group) – Fayoum University August 2022
  - Embedded Systems
- NTI - Amazon Public Cloud (Online training) July till August 2022
  - General skills: communication skills, Interview skills, presentation skills, Leadership skills, teamwork skills, decision making and problem-solving skills, time management skills.
  - Freelancing skills, introduction to information security and privacy.

## Languages

- **Arabic:** Mother Tongue.
- **English:** Excellent.