

# Gehad Helmy Abdelrasik

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## Summary

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I'm a Data Science and AI student with a strong track record in transforming complex data into meaningful, real-world solutions. I combine deep analytical skills with curiosity and creativity to build intelligent systems that make an impact — not just analyzing data, but exploring it, questioning it, and deploying models that matter. Proficient in Python, SQL, Scikit-learn, and Streamlit, with experience in data engineering, machine learning, and interactive dashboards. Passionate about predictive modeling, smart systems, and solving real-world problems through data-driven innovation.

## Education

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**Alexandria University**, Bachelor's in Computer & Data Science

Sept 2023 – May 2027

- **GPA:** 3.56/4.0
- **Relevant Coursework:** Machine learning, AI, data science, Data mining, databases, probability and statistics

## Internships

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**Data Science & AI Intern — Digital Egypt Pioneers (DEPI)**

- Remote / Alexandria, Egypt | **July 2025 – Present**
- **Track:** Data Science & AI – *Data Engineering Focus*

**IoT Intern — Faculty of Computers and Data Science, Alexandria University**

- Alexandria, Egypt | June 2025 – Present

## Projects

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**Breast Cancer Awareness App (April 2025 - Present)**

App/Live Demo

- Developed an AI-powered diagnostic tool using the Breast Cancer Wisconsin dataset, achieving 98% accuracy in tumor classification with Scikit-learn.
- Implemented Recursive Feature Elimination (RFE) to optimize model performance and reduce overfitting.
- Designed and deployed an interactive Streamlit app for real-time predictions, featuring visualizations of key metrics (precision, recall, confusion matrix).
- Tools Used: Python, Scikit-learn, Streamlit, Pandas, Matplotlib

**Flights Web Scraping & Analysis (May 2025 - July 2025)**

[github/Flights-scraping](https://github.com/GehadHelmy/flights-scraping)

- Built an end-to-end pipeline to scrape and analyze 100+ flight routes from public aviation APIs, cleaning and transforming raw data using Pandas.
- Created dynamic visualizations (e.g., route maps with Folium, passenger trends with Seaborn) in a Streamlit dashboard, highlighting top departure countries and seasonal trends.
- Insights enabled hypothetical cost-saving strategies for airlines by identifying underutilized routes.
- Tools Used: Python, Pandas, Folium, Matplotlib, Seaborn, Streamlit

**Crime Rate Prediction (March 2025 - May 2025)**

[github/Crime-rate](https://github.com/GehadHelmy/crime-rate)

- Trained a CatBoost regression model on historical crime data to predict rates with 85% accuracy, outperforming baseline models (Linear Regression, Random Forest).
- Engineered temporal features (e.g., day-of-week, holiday flags) to capture patterns, improving forecast reliability.
- Visualized crime hotspots and trends using Matplotlib/Seaborn for stakeholder reports.
- Tools Used: Python, Pandas, CatBoost, Scikit-learn

## Technical Skills

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**Languages:** Python , SQL, R, Java , Dart (Flutter)

**Machine Learning:** Scikit-learn, CatBoost, KNN, SVM, Neural Networks

**Data Analysis & Visualization:** : Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI

**Tools & Frameworks :** Streamlit, Folium, NetworkX, Git

**Databases :** SQL, MongoDB, Excel, Relational Database Design

**Other:** Data Structures and Algorithms, OOP, Basic Security Principles

## Soft Skills

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**Analytical Thinking**

**Problem-Solving**

**curiosity**

**creativity**

**Management**

**Team Collaboration**

## Language

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**Arabic:** Native

**English:** Professional Working Proficiency (Advanced written & verbal communication)

## Volunteering

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**IT Committee Member** — HackerRank FCDS

**IT Member** — Project Engine FCDS

**OC Member** — CTRL+A