

# Mahmoud Essam

**Data science student**

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## Experience

- **First Level Second Term – Faculty of Computer and Data science**  
**Student Management System**

The Student Management System is a Java GUI application that utilizes database skills to efficiently manage and organize student information.

**GitHub Link:**

[Projects/Faculty Projects/Java GUI at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Second Level Second Term – Faculty of Computer and Data Science**  
**Ebn-Elhaitham Simple Database**

The Ebn-Elhaitham system is designed to establish and store comprehensive student information, including data such as CGPA, training records, and courses taken until the last year. The provided diagram and code aim to replicate a similar database structure and functionality for managing student data effectively

**GitHub Link:**

[Projects/Self Projects/Database/Ibn El-haitham at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Second Level Second Term – Faculty of Computer and Data science**  
**Regression Analysis (Scratch)**

Based on the content learned from the "Regression Analysis" course in the Faculty, I applied the concepts and techniques using the R programming language. Starting from scratch, I successfully implemented Simple Linear Regression (SLR) and Multiple Linear Regression (MLR) models. I have kept myself updated with the latest advancements and developments in the field of regression analysis.

**GitHub Link:**

[Projects/Self Projects/Regression at main · MahmoudEssam707/Projects \(github.com\)](#)

## Summary

I am a student at Alexandria University, specializing in Data Science within the FCDS. With a strong background in statistics and mathematics, I am proficient in programming languages such as R, Python, Java, and in SQL for DB. My focus lies in mastering the Machine

## Skills

- R analytics
- Advanced Python
- Java and C++
- Database fundamentals
- Linear Algebra – Calculus – Regression – Numerical – Probability & Statistics
- Machine learning
- Embedded Systems

## Education

**2018-2020 Gamal Abd-Elnasser Military School**  
**Alex-Egypt Secondary School**

**2021-2025 Faculty of Computing and Data Science**  
**Alex-Egypt CGPA: 3.721**

## Military Status

Postponed

## Experience

- **Second Level Second Term – Faculty of Computer and Data science**  
**Anime Recommendation System**

The Anime Recommendation system is one of the best projects as it includes a data set containing information regarding user preference from 73,516 users on 12,294 anime. Every user in the database will be able to add anime to the list and share ratings compiling a data set with those ratings. The anime recommendation system project helps in creating a system that produces efficient data based on the user viewing history and sharing rating.

**GitHub Link:**

**[MahmoudEssam707/Anime Predictor\(github.com\)](https://github.com/MahmoudEssam707/Anime-Predictor)**

- **Summer 2023– Faculty of Computer and Data science**  
**Smart Home System (IOT Internship)**

A smart home system entails a comfortable living space equipped with various sensors such as flame, gas, water, and motion detectors. These sensors work in harmony to swiftly identify any potential issues within the household. To enhance convenience and safety, the system includes a servo controller that can be managed through a user-friendly Flutter app. This app not only allows control over numerous aspects of the home but also presents a dedicated sensor page for real-time monitoring of any anomalies. The integration between the ESP32 devices and the Flutter app is seamlessly facilitated by our Firebase cloud service, providing a comprehensive and cohesive smart home experience.

**GitHub Link:**

**[Embedded-Project/PROJECT at main](https://github.com/MahmoudEssam707/Embedded-Project)**  
**[MahmoudEssam707/Embedded-Project \(github.com\)](https://github.com/MahmoudEssam707/Embedded-Project)**

- **Summer 2023 – IBM Project**  
**SpaceX (IBM Capstone)**

SpaceX advertises Falcon 9 rocket launches on its website, with a cost of 62 million dollars; other providers cost upward of 165 million dollars each, much of the savings is because SpaceX can reuse the first stage. Therefore if we can determine if the first stage will land, we can determine the cost of a launch. This information can be used if an alternate company wants to bid against SpaceX for a rocket launch

**GitHub Link:**

**[Projects/Self Projects/SpaceX at main](https://github.com/MahmoudEssam707/Projects/Self-Projects/SpaceX)**  
**[MahmoudEssam707/Projects \(github.com\)](https://github.com/MahmoudEssam707/Projects)**

## Certifications

- Summer 2022
  - Data Camp : Python Fundamentals
  - Google Data Analytics
  - ministry of communications and information technology Data Analysis
- Winter 2023
  - WorldQuant Certificate
  - IBM Data science
- Summer 2023
  - Streamlit Deployment

**Link of my Certificates**  
**[Projects/Certificates at main](#)**  
**[MahmoudEssam707/Projects \(github.com\)](https://github.com/MahmoudEssam707/Projects)**

## Experience

- **Second Level upgrade project – Faculty of Computer and Data Science**

### Walmart Supermarkets

Walmart runs several promotional markdown events throughout the year. These markdowns precede prominent holidays, the four largest of all, which are the Super Bowl, Labour Day, Thanksgiving, and Christmas. The weeks including these holidays are weighted five times higher in the evaluation than non-holiday weeks. Part of the challenge presented by this assignment is modeling the effects of markdowns on these holiday weeks in the absence of complete/ideal historical data. Historical sales data for 45 Walmart stores located in different regions are available.

#### GitHub Link:

[Projects/Self Projects/Walmart at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Summer 2022 – Google Project**

### Bike Share

In 2016, Cylcistic launched a successful bike-share offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geotracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system a time.

#### GitHub Link:

[Projects/Self Projects/Google Capstone\(Bike Share\) at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Summer 2023 – Breast cancer prediction**

This project aims to classify breast cancer cases as benign or malignant using machine learning models. It includes data preprocessing, model training, and evaluation..

#### GitHub Link:

[Projects/Self Projects/Breast cancer prediction at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Summer 2023 – League of legends (Who's winner)**

League of Legends is a popular online multiplayer game where two teams compete to destroy each other's Nexus while overcoming various challenges and objectives. This project aims to predict the outcome of League of Legends ranked games based on in-game features. We have developed two machine learning models, a Decision Tree classifier, and a Random Forest classifier, to determine the winning team based on these features.

#### GitHub Link:

[Projects/Self Projects/League of legends \(Who's winner\) at main · MahmoudEssam707/Projects \(github.com\)](#)

- **Summer 2022 – Handwritten Reco**

In this AI project, we aim to recognize handwritten digits using a Convolutional Neural Network (CNN). We will be working with the MNIST dataset, which consists of 60,000 grayscale images of handwritten single digits ranging from 0 to 9, along with their corresponding labels.

#### GitHub Link:

[Projects/Self Projects/Handwritten Reco at main · MahmoudEssam707/Projects \(github.com\)](#)