



# Kareem Ayad

## Computer Scientist

United Kingdom / Egypt

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[Website](#)

### Date of birth

01/10/2002

### Skills

Web Development

Machine Learning /  
Reinforcement Learning:  
Deep Learning, NLP

Database Systems: SQL,  
MySQL

Frontend Frameworks: CSS3

Backend and APIs

Cybersecurity

### Languages

English

Arabic

French

## Profile

I am a recent Computer Science graduate specializing in Artificial Intelligence from the University of Brighton, with a deep passion for emerging technologies.

Committed to using AI to drive innovation and efficiency, I am currently based in Egypt and have a strong desire to contribute my skills within the tech industry.

My enthusiasm and readiness make me an asset for any team seeking immediate, expertise in AI.

## Employment History

### Website Developer, Paris Bistro

WordPress using ecommerce plugins and a lot of manual HTML, CSS and JavaScript and a custom python API.

## Education

### Bachelor Science, University of Brighton

Sep 2020 - Jul 2023

Degree of Bachelor of Science with Second Class Honors in computer Science with Artificial Intelligence.

With Particular interest in the following courses: - Research Methods & Techniques, Machine Learning, Artificial Intelligence, Deep Learning, Cyber Security Fundamentals, Web Science, Programming Languages, Algorithmic I, Data Fundamentals, Operating Systems, Database Systems, Mobile HCI, Robotics Foundations, Systems Programming.

## Courses

AP Computer Science, College Board

AP Calculus, College Board

AP Biology, College Board

Machine Learning with Python (300 Hours), Free Code Camp

Responsive Web Development, Free Code Camp

# Internships

## IT Intern, Juhayna

During my internship at Juhayna's IT department, I gained hands-on experience in enhancing the company's technical infrastructure and software processes. My pivotal role was assisting in the design, testing, and deployment of a customer service chat-bot, streamlining inquiries, and improving client interactions. This experience fortified my understanding of the marriage between IT solutions and business efficiency.

# Projects

## Starter project - Breakout

Breakout is a classic computer arcade game Demonstrate a practical understanding of Object-Oriented programming techniques Use sequence, selection, and iteration to develop simple applications Utilize a variety of data types and collections Test and debug simple programs.

## Responsive website

Understand and apply web technologies. Appreciate and apply fundamental web design principles. Create well-formed, accessible, and standards-compliant web pages.

## ML Open ended project

Understand logic reasoning, NLP, speech, and image recognition. Demonstrate a critical awareness of current AI techniques. Justify appropriate AI techniques to solve real world problems.

## Health Chatbot

The project aimed to create a chatbot that can assist customers in real-time, answering frequently asked questions, guiding users through troubleshooting processes, and providing information about products and services. The chatbot was designed to understand the context, manage multi-turn conversations, and provide relevant and accurate responses.

## **Huffman Coding**

The project focused on the design and implementation of the Huffman coding algorithm, a popular lossless data compression technique. Given an input file, the algorithm assigns variable-length codes to input characters, prioritizing frequent characters with shorter codes. This results in a compressed output that can be decompressed to retrieve the original data without any loss.

## **Rock Paper Scissors Game**

The Rock, Paper, Scissors game is a classic hand game usually played between two people. In this mobile adaptation, the player competes against the computer. The winner is determined by the rules: rock crushes scissors, scissors cuts paper, and paper covers rock and was implemented with Android Studio with Kotlin (for Android development) OR Xcode with Swift (for iOS development). UI/UX design tools like Adobe XD or Sketch for mockups.

## **Forecasting Bitcoin Prices**

In this project, I employed machine learning algorithms and time series analysis to predict Bitcoin prices. The primary goal was to analyze historical data and identify patterns that could be leveraged for predictive modeling, contributing to more informed investment decisions. Key components included: Data Collection and Preprocessing, Exploratory Data Analysis (EDA), Feature Engineering and Selection, Modeling and Algorithms, Hyperparameter Tuning and Optimization, Validation and Back testing, Sentiment Analysis Integration, Visualization and Reporting