



# Kareem Ayad

## Computer Scientist

Brighton, United Kingdom

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### 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'm a recent graduate in Computer Science specializing in Artificial Intelligence from the esteemed University of Brighton. Passionate about emerging technologies, I am committed to leveraging AI to create solutions that drive efficiency and innovation.

## 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 Design, 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

Function as a computing professional, with understanding of professional, legal, ethical and information security issues in a business and commercial context Research and analyze problem situations; model the requirements of possible solutions before implementation Work effectively in an agile team, plan projects and manage time Effectively manage the development process, adhering to an agile project process Design, specify and implement usable ICT solutions which address the problems and requirements Assess the fitness for purpose of such an ICT solution.

## **Huffman Coding**

Assess how the choice of data structures and algorithm design methods impacts the performance of programs. Choose the appropriate data structure and algorithm design method for a specified application. Demonstrate an understanding of the limitations of/merits of an operating system as a manager of normally scarce resources, Describe and propose solutions to issues arising from the interactions between system and/ or user level components.

## **Rock Paper Scissors Game**

Demonstrate an understanding of technical and user experience aspects in mobile computing. Utilize an industry standard software development environment to develop a mobile application. Design and develop a software application for deployment on a mobile OS. Utilize an industry standard software development environment to develop a mobile application.

## **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