Waleed Hassan

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PROFILE

Enthusiastic Computer Science undergraduate with hands-on experience in data-driven AI projects—ranging from **stock prediction (GRU/LSTM**) **to handwriting recognition** and **hotel booking cancellation forecasting**. Skilled in **Python**, **SQL**, and **Machine Learning** frameworks, alongside full-stack **web development** (HTML, CSS, JavaScript, React, PHP). Thrives in dynamic environments, championing problem-solving, debugging, and scalable solutions. Eager to drive innovation and deliver impactful results.

EDUCATION

- BSc (Hons) in Computer Science with Artificial Intelligence **| University of Huddersfield** **2022- 2025**
    - First Class Predicted
    - Key Modules**:**
        - Data-Driven AI, Knowledge-Based AI, Computational Mathematics

- International Year 1 in Computing and Engineering **| ISC | University of Huddersfield** **2021 - 2022**
    - Achieved Pass with Distinction

WORK EXPERIENCES

Security Officer | FGH Security **Jun 2022 to Aug 2024**

- Maintained a safe environment for staff and visitors by continuously monitoring premises and promptly responding to incidents.
- Leveraged problem-solving and quick decision-making skills to identify and mitigate security risks, ensuring business continuity.
- Conducted detailed patrols and inspections, creating thorough reports that showcased accuracy and organizational proficiency.
- Maintained accurate logs and reports, showcasing attention to detail and organizational skills.
- Collaborated with team members and communicated effectively with clients to ensure smooth operations.
- Adhered to strict protocols and procedures, demonstrating reliability and a strong sense of responsibility.
- Utilized surveillance systems and security equipment to monitor activities and prevent unauthorized access.

KEY SKILLS

Python/C++/Java-

- Completed multiple university projects using these programming languages and secured grade A.
- Developed a **Stock Prediction & Forecast Web Application** using Python (Streamlit, GRU, LSTM) for time series analysis
- Successfully utilized the Pandas, NumPy, Matplotlib and Seaborn libraries in Python to work with datasets.
- Developed OOP applications in JAVA and C++ and secured grade A in relevant modules.

Analytical Thinker-

- Excelled in **Computational Mathematics 1 and 2**, breaking down complex problems into manageable tasks.
- Demonstrated thorough data analysis in the **Hotel Booking Cancellation Prediction** (89% training accuracy, 86% test accuracy) and **Handwritten Word Recognition** projects, effectively interpreting patterns and improving model accuracy through data preprocessing and feature engineering.

PHP/HTML/CSS/SQL-

- Built a **Student Accommodation Website** (Group Project) with HTML, CSS, JavaScript, React (front-end), and PHP/SQL (back-end), ensuring a responsive UI and seamless data transactions.

Problem Solving

- Successfully debugged and refined code across various ML and OOP projects, reinforcing resilience and adaptability in problem-solving.Optimized neural network hyperparameters (GRU/LSTM) in the **Stock Prediction Web Application**, improving accuracy and performance in real-time forecasting scenarios.
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Leadership-

- Leaded and developed “Book-Eazy”, a retail finder website by managing teamwork and task distribution, leading to grade A for all the team members.

Projects

- **Stock Prediction & Forecast Web Application (GRU & LSTM)-** Developed a Streamlit-based web app to forecast stock prices using Python. Employed GRU and LSTM neural networks for time series analysis and prediction.Performed data preprocessing, feature engineering, and hyperparameter tuning. Designed an interactive user interface with Streamlit for real-time visualization
- **Handwritten Word Recognition** – Developed a machine learning pipeline for recognizing handwritten words using **Python**, **NumPy**, **Pandas**, and **NLTK**, among other libraries. Leveraged **scikit-learn** to train multiple models, with results visualized using **Matplotlib** and **Seaborn**. By focusing on effective data preprocessing and feature engineering, achieved high accuracy and showcased in-depth proficiency in data-driven AI techniques.
- **Hotel Booking Cancellation Prediction –** Built a predictive model in **Python** using **NumPy**, **Pandas**, **scikit-learn**, and other libraries to forecast hotel booking cancellations. Achieved **89% training accuracy** and **86% test accuracy** through comprehensive data preprocessing, feature engineering, and hyperparameter tuning. This project showcased strong analytical skills and proficiency in data-driven AI methodologies.
- **Student Accommodation Website(Group Project)**- Developed a modern web application for students across the UK to search and reserve accommodations in real time. Implemented the frontend using HTML, CSS, JavaScript, and React for a responsive, dynamic user interface. Utilized PHP for server-side logic and database interactions, ensuring secure bookings and seamless communication with the backend. This project demonstrates robust full-stack skills and the ability to deliver practical solutions for a broad user base.
- **Calculator (Data Structures & Algorithms - 2nd Year)**
  Designed and developed a Java-based calculator, emphasizing Object-Oriented Programming principles. Leveraged core data structures and algorithms to implement robust functionality for arithmetic operations, error handling, and user input validation. This project highlighted a strong foundation in Java and algorithmic thinking, further honing problem-solving and debugging skills.
- **Card Game (Object-Oriented C++ – 2nd Year)**
  Developed a multiplayer card game in **C++** with a strong focus on Object-Oriented Programming. Implemented classes for players, decks, and game rules, showcasing robust modular design and code reusability. This project enhanced understanding of memory management, debugging, and efficient data handling in C++.

INTERESTS

- Exploring and learning new technologies to expand my technical skill set.
- Solving coding challenges on platforms like LeetCode to sharpen problem-solving abilities.
- Engaging in discussions with fellow developers on topics ranging from technology trends to innovative solutions.
- Passionate about football, both as a player and a fan, which helps me stay active and build teamwork skills.

Languages –

- English (fluent)
- Urdu (fluent)

Hobbies

I also enjoy playing chess and travelling. I used to learn chess from grandmasters during COVID 19 pandemic lockdown. I love travelling and taking photographs because this is what I enjoy in my vacation.

References

Available upon request