Khalid Belhadj Computer Science & Al Student

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Personal Profile

Passionate software engineer with a strong academic background in AI and Computer Science. Motivated by a passion for problem solving, I am seeking a challenging role to further develop my skills and contribute to innovative ideas.

Skills

Spoken Languages: Fluent in English and Arabic, intermediate in French **Interests** Machine Learning, Application and Web Development, Data Science, Low-level programming

Education

University of Edinburgh, Al and Computer Science (BSc Hons)

September 2021 - June 2025

- · Averaging, and on track for a 1st class degree
- Notable courses, Algorithms & Data Structures (97%), Machine Learning (80%), Natural Language Processing (83%), Calculus (90%), Linear Algebra (90%), and Discrete Maths & Probability (80%)

International Baccalaureate Diploma

September 2019 – June 2021

• Received 42/45 points with 7/7 in Higher Level Maths, Physics, IT, and Business Management

Experience

Morgan Stanley, Technology Summer Analyst

June 2024 – September 2024

- Developed a caching systems to speed up data retrieval 20 times over a 3 month period
- · Worked with a team to develop a reliable and scalable distributed data service, handling millions of requests

InfBase, InfBase Tutoring at The University of Edinburgh

September 2023 – June 2024

- · Hosted help sessions for topics including Algorithms and Data Structures, Data Science and Discrete Maths
- Assisted 1st and 2nd year students with understanding course material and completing assignments

Bennu.ai, Contractor - Software Developer & Data Collection

January 2023 - March 2023

- Developed software to collect thousands of data points for the training of classification models
- Integrated the software with the company's existing data pipeline, ensuring data integrity and security

BKUK, Crew Member

September 2022 - September 2023

• Developed strong communication and teamwork skills while working in a fast-paced environment

Tutoring, International Baccalaureate Summer Tutoring

June 2022 – September 2022

Developed lesson plans and study materials tailored to each student, preparing them for the 2023 exams

Projects and Activities

Hack the Burgh, The University of Edinburgh's annual hackathon

March 2024

- 1st place winner in the overall hackathon, as well as "Best use of Cloud Services" award
- Built a student notes sharing platform with semantic search capabilities using vector embeddings

Morgan Stanley Hackathon, Code to Give hackathon for CHAS

October 2023

- 1st place winner of the 2023 Code to Give hackathon hosted by Morgan Stanley Glasgow
- · Built a children's story book application which uses eye-tracking to control the user interface

Hand-Written Digit Classifier, Using Numpy to train a classifier on the MNIST dataset

- Achieved 98% accuracy on a machine learning hand-written digit classifier, written from scratch
- Fine tuned the step and batch sizes, and investigated their effect on training time and accuracy

System Design Project, Lead a team of 9 to develop an automatic clothes drying and folding solution

- Designed and implemented the software architecture to automatically detect and fold clothes
- Used a range of IOT devices to control the system through motors, and sensors

Battle Stocks, Worked with other Morgan Stanley interns to develop a stock trading simulation game

- Developed a server-client architecture to allow multiple users to play the game simultaneously
- Implemented a trading algorithm to simulate the stock market and allow users to trade stocks