Khalid Belhadj
Computer Science & AI Student

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Education

University of Edinburgh, AI and Computer Science (BSc Hons)   Sept 2021 – Jun 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   Sep 2019 – Jun 2021

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

Experience

The University of Edinburgh, Teaching Support   Sep 2024 – Jun 2025

- Hosted mandatory tutorial sessions for 2nd and 3rd year courses as part of the teaching support team
- Courses include: Algorithms and Data Structures, Introduction to Algorithms and Data Structures, and Machine Learning
- Worked with lecturers and course organisers to develop and deliver course material

Morgan Stanley, Technology Summer Analyst   June 2024 – Sep 2024

- Used Redis, Java and Spring to create a distributed cache with high availability and low latency, increasing service performance by 20x
- Worked with a team to develop a reliable and scalable data service, handling millions of requests
- Spike tested the service, identifying and fixing bottlenecks to ensure the service could handle peak loads

InfBase, InfBase Tutor at The University of Edinburgh   Sep 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   Jan 2023 – Mar 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

Projects and Activities

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

System Design Project, Clothes drying and folding robotics project   Jan 2024 – May 2024

- 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   August 2024

- 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

Skills

Spoken Languages: Fluent in English and Arabic, intermediate in French
Tools: Java, Spring, Scala, Python, Pandas, C/C++, Rust, Go, Bash, Haskell, Typescript, React
Interests: Machine Learning, Application and Web Development, Data Science, Low-level programming