

Education

University of Edinburgh, AI 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 low latency distributed cache using Redis for an internal product reference data service, used by hundreds of internal tools
- Spike tested the cache with millions of products to minimise latency and memory usage
- Considered locality, replication and compression, ensuring high availability all around the world

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 data collection software to assist the company in training classification models
- Integrated the software with the company's existing data pipeline, ensuring data integrity and security

Tutoring, International Baccalaureate Summer Tutoring

June 2022 – September 2022

- Provided one-on-one tutoring sessions for IB students, preparing them to sit the May 2023 exams
- Developed personalised lesson plans and study materials tailored to each student's needs and learning style

Projects and Activities

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

March 2024

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

Morgan Stanley Hackathon, Code to Give hackathon for CHAS

October 2023

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

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

- Used only Numpy to create a Stochastic Gradient Descent logistic classifier which achieved 98% accuracy
- 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, including the control system and user interface
- Used a range of IOT devices to control the system through motors, and sensors

Low-Level Server Library, Using C to develop an HTTP server library

- Developed a web server library with features such as request routing, HTTP and JSON parsing
- Built and used an arena allocator library to ensure memory safety and efficiency

Skills

Spoken Languages: Fluent in English and Arabic, intermediate in French

Interests Machine Learning, Application and Web Development, Data Science, Low-level programming
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