Ammar Nagri

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Education

The University of Manchester Sept 2025 — Present
BSc. in Computer Science and Mathematics with Industrial Experience *Manchester, GB*

Work Experience

Software Engineer - Work Experience Aug 2022 — Aug 2022
Flyt (Merged into JustEat) *Farringdon, GB*

- Engineered a production-grade **Go microservice** for real-time order status, designed with OpenAPI specifications and internal tooling
- Developed modular **HTTPHandler** logic for query parsing, database access, and error handling
- Authored comprehensive unit tests with Go's **httptest**, validating both success and failure execution paths validated end-to-end correctness through **Postman-driven** integration testing

Software Engineer - Work Experience Oct 2022 — Oct 2022
Ably *Remote*

- Designed and tested a curl command using **Postman**, which was integrated onto the Ably website
- Implemented and tested Ably's **REST API** endpoints, feedbacking to development and documentation teams, improving end-to-end API guidance

Software Engineer Jul 2025 — Aug 2025
studyboost.gg *Remote*

- Formulated a confidence metric as a **multi-variable** optimisation problem, balancing correctness, efficiency, and difficulty through adaptive weighting, to underpin personalised feedback in the startup's **adaptive learning algorithm**.

Projects

Student Researcher, Big Data: ATLAS Sept 2023 — June 2024

- **Reconstructed the Z^0 boson** to calculate its invariant mass through observing its two primary decay routes, using data collected by the ATLAS detector
- Co-authored a **research poster** and delivered a poster presentation at a **London physics conference**
- **Selected to attend a masterclass by Oxford PhD students**, gaining exposure to frontier particle physics analysis methods

Student, Activation Function Effects on Convergence Aug 2025

- Built reproducible **deep learning pipelines in PyTorch** with deterministic seeding to classify the MNIST dataset
- Designed a **modular framework** to benchmark different activation function families across **MLP** and **TinyVGG**
- Produced **comparative metrics and visualisations** for model performance using **matplotlib.pyplot**

Student, LSTM / RFR BTC Price Regression Dec 2023 — Oct 2024

- Developed **LSTM** and **RFR** models, using **Keras**, on BTC close prices to regress prices under different compute budgets.
- Implemented a **custom timing handler to pause model training on demand**, enabling control over training duration
- Produced a 4000 word report outlining the methodology and visualised the results using **matplotlib.pyplot**

Competitions

Junior/Intermediate/Senior Mathematics Challenge (Gold)

UKOAI (UK Olympiad in Artificial Intelligence, Silver)

Skills

- **Languages**: Python, Java, Golang, Typescript
- **Frameworks**: Tensorflow , Pytorch, NumPy, Pandas, matplotlib, scikit-learn, OpenCV, XGBoost, AWS, FastAPI
- **Spoken Languages**: English, Gujrati, Mandarin (GCSE Level 7), French (IB Level 6)

- **Interests**: Writing and listening to music, Swimming, Football, Rock climbing