

Aisha Patel

Junior ML Engineer

London, United Kingdom | aisha.patel@gmail.com | +44 7463 821 094 | linkedin.com/in/aishapatel-ml



AI and Machine Learning MSc graduate from Imperial College London with a 3 month research internship at **DeepMind**. Deployed a diagnostic prediction model for an NHS trust with **200ms inference latency**. Maintains **6 public GitHub repositories** with end-to-end ML pipelines covering data ingestion, training, and serving. Proficient in PyTorch, TensorFlow, AWS SageMaker, and MLflow.

■ EXPERIENCE

Research Intern, Google DeepMind, London

Jun 2025 – Sep 2025

Three-month research internship in the Health team, working on clinical time-series modelling.

- Explored **4 model architectures** (Transformer, LSTM, Temporal CNN, S4) for ICU patient deterioration prediction using the MIMIC-IV dataset
- Processed and featurised **58,000 ICU admissions** with 17 clinical variables, building a reproducible data pipeline in Python
- Best model achieved **AUROC of 0.87**, improving on the team's previous baseline by 3.2 percentage points
- Results contributed to a paper currently **under review at CHIL 2026** (Conference on Health, Inference, and Learning)

Teaching Assistant (Part-time), Imperial College London, Department of Computing, London

Jan 2025 – May 2025

TA for the MSc Machine Learning module.

- Ran weekly lab sessions for **35 students**, covering PyTorch implementations of CNNs, RNNs, and GANs
- Marked **70 coursework submissions** on model design and evaluation, providing detailed written feedback

■ EDUCATION

MSc Artificial Intelligence and Machine Learning in Artificial Intelligence and Machine Learning, Imperial College London, London

Sep 2024 – Sep 2025

Distinction (overall average **76%**). Dissertation on *deploying a diagnostic prediction model for an NHS trust* received **80%**.

- Relevant modules: Deep Learning, Reinforcement Learning, Probabilistic Inference, Computer Vision, Natural Language Processing

BEng (Hons) Electronic Engineering in Electronic Engineering, University of Southampton, Southampton

Sep 2021 – Jun 2024

First Class Honours (1st, **72% average**).

■ SKILLS

PyTorch & TensorFlow • Python (NumPy, pandas, scikit-learn) • AWS SageMaker & Lambda • MLflow (Experiment Tracking & Model Registry) • Docker & Kubernetes • CI/CD for ML (GitHub Actions) • SQL (PostgreSQL, BigQuery) • Data Pipeline Engineering (Airflow basics) • Model Monitoring & Drift Detection • ONNX (Model Export & Serving) • Git & GitHub • Linux (Ubuntu, CLI)

■ CERTIFICATIONS

AWS Certified Machine Learning – Specialty, Amazon Web Services

Jul 2025 – Jul 2028

DeepLearning.AI – MLOps Specialisation, Coursera / DeepLearning.AI

Jan 2025 – May 2025

■ LANGUAGES

English - Native • Gujarati - Conversational

■ PROJECTS

NHS Diagnostic Prediction Model (MSc Dissertation)

Mar 2025 – Aug 2025

Deployed a model predicting patient deterioration risk for an NHS trust's emergency department.

- Trained a **gradient boosted model** on 23,000 anonymised patient records with 31 clinical features
- Deployed via **AWS SageMaker** with a REST API endpoint achieving **200ms inference latency**
- Model achieved **AUROC of 0.84** and was approved for a 3 month pilot evaluation by the trust's clinical informatics team

Open Source – PyTorch Time-Series Library

Jan 2025 – Jun 2025

Contributed to an open source PyTorch library for time-series forecasting (2,800 GitHub stars).

- Submitted **2 merged pull requests** adding a new S4 (Structured State Space) model implementation
- Wrote **18 unit tests** and updated documentation with usage examples
- Implementation was benchmarked against 3 existing models and shown to reduce MAE by **11%** on the ETT benchmark

■ REFERENCES

Dr Neha Sharma, Research Scientist, Google DeepMind, neha.sharma@deepmind.com, +44 7700 900 834

■ EXTRA CURRICULAR ACTIVITY

Committee Member – Imperial AI Society

Sep 2024 – Sep 2025

Organised **5 technical talks** with speakers from DeepMind, Meta AI, and Wayve. Ran a weekly paper reading group with an average of **15 attendees**.

Mentor – AI4Good UK (Summer Programme)

Jul 2025 – Aug 2025

Mentored a team of **4 undergraduate students** building an ML model for flood risk prediction. Guided them through data preparation, model selection, and presentation of results.