MIMI REYBURN | AI ENGINEER

Portfolio | GitHub | LinkedIn | Email

EXPERIENCE

AI Design Engineer - NHS
Jul 2024 - Present

Exploratory 9-month project demonstrating how genAI can improve patient experience at UCLH.

- Designed and built proof-of-concept RAG system for improving accessibility of cancer information.
- Demonstrated a novel, scalable and affordable data-driven approach to producing new patient resources.

Machine Learning Engineer - Oak
Feb - May 2024

Sprint project contracted to develop rigorous evaluation tools for Oak's AI experiments, supporting UK teachers.

- Developed innovative tools to assess LLMs in an education context, facilitating data-driven development of Aila and ensuring alignment with stakeholder needs. Presented tools to AI experts at 10 Downing St.
- Fine-tuned GPT3.5-turbo, reducing latency with equivalent performance and reducing cost by over 75%.

Software Engineer - ION-O TECH
Nov 2022 - Apr 2023

Six-month InnovateUK-funded project at a startup making batteries smarter, safer and more sustainable.

- Collaborated with Research Scientists to design and build a live e-bike battery data collection, analysis and presentation system with live insights in a custom Node.js web app and MQTT charging control.

EDUCATION

Applied Machine Learning - Machine Learning Institute
Jul - Sep 2023

6-week intensive programme followed by workshops (ongoing) teaching the full machine learning lifecycle, including cutting-edge AI architectures (Transformers, LLMs, Stable Diffusion), scalable MLOps and evaluation.

- Projects include fine-tuning Llama-2 7B on GPUs with QLoRA, developing a recommendation engine, and implementing CNN AutoEncoder and Transformer architectures in Python.
- Regular presentations to peers, applying academic research to real-world problems.

Design Engineering, MEng - Dyson School, Imperial College London
Sep 2018 - Jun 2022

A traditional engineering education with design principles, driving innovative solutions to real-world problems. Modules include optimisation, robotics, data science and machine learning.

- **Graduated with First Class Honours, receiving 2 awards for contributions to the Imperial community.**
- Master's Thesis (81%): *'Machine Vision towards Reducing Household Food Waste'*. Tackling food waste via inventory-tracking and novel freshness detection with TensorFlow, R-Pi & Google Coral TPU. Read paper ->

SKILLS & INTERESTS

Machine Learning - *Training models to test hypotheses:*

- Pragmatic programmer, comfortable with Python, PyTorch & TF.
- Expertise in custom datasets and model training from scratch.
- Experienced in developing AI solutions for user-oriented problems.

Software Engineering - *Building projects from idea to execution:*

- Confident in web development, databases and version control.
- Strong foundation in Docker and MLOps for robust data pipelines.
- Excellent communication and presentation skills.

Interests

- Personal projects exploring real-world problems: View portfolio->
- Sustainability & Tech for Good
- Cooking, creative coding, and ceramics.