MIMI REYBURN - CREATIVE ENGINEER

EDUCATION

Applied Machine Learning Bootcamp - Machine Learning Institute   Jul 2023 - Jan 2024

6-week intensive followed by evening workshops focused on cutting-edge ML architectures (Transformers, LLMs, NLP), coupled with hands-on experience in MLOps, system evaluation, and scaling AI solutions.

- Fine-tuned Llama-2 7B on GPU with LoRA and FP16, built a social media recommendation engine and data pipelines with MLOps and developed CNN AutoEncoder and Transformer architectures in Python.

Design Engineering, MEng - Imperial College   Sep 2018 - Jun 2022

A highly-creative degree uniting design-thinking and engineering to innovatively address real-world problems and deliver solutions through teaching in rigorous engineering, user-centric design, and enterprise.

- Graduated with First Class Honours and 2 accolades for contributions to the community.
- Master's Thesis (81%): *'Machine Vision towards Reducing Household Food Waste'*. Tackling food waste by inventory-tracking with novel decay recognition using TensorFlow, R-Pi & Google Coral TPU. [Read paper ->](#).
- Teaching assistant in Mechatronics and Engineering Mathematics through strong academic performance.

EXPERIENCE

Machine Learning Engineer - Oak   Feb 2024 - Present

Sprint project developing Oak's AI experiments and MLOps infrastructure to support teaching in the UK.

- Enhanced LLMs for production with fine-tuning. Set up data pipelines for AI experiment tracking with MLOps. Proactively consulted User Researchers to ensure effective and appropriate product development.

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

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

- Consulted Research Scientists to design and build a live e-bike battery data collection, analysis and presentation system with a custom web app. Implemented remote charging control using MQTT.
- Developed a micro-mobility battery data logger, from rapid prototyping to a custom PCB, reducing the footprint of the previous model by 50% and collecting over 100k battery health data points.
- Refined practical electronics skills through a 40V battery teardown and rewiring e-bike systems.

Design Engineer Intern - Emotech AI   Apr - Sep 2021

Six-month placement at an AI startup, pioneering leading Multi-Modal AI Solutions and Speech Technologies.

- Demonstrated leadership in curating an audio dataset, facilitating new product development and IP. Worked cross-functionally, coded time-saving Python scripts and hired 20 freelancers within budget.
- Built GUI for customer-facing app & UX/UI designs in Design Team, helping win a significant new contract.

SKILLSET

Engineering - skilled in creating prototypes from ideas to validate hypotheses:

- Versatile and confident prototyper in hardware, software, IoT and integrated systems.
- Experienced building engaging web experiences using Node.js, HTML, CSS and JS.
- Passionate maker and fast learner with a strong ability to apply principles in new contexts.
- Curated datasets, built robust data pipelines with MLOps and trained ML models using PyTorch.

Design - user-oriented and iterative approach to problem-solving and product development:

- Experienced in UX, usability and UI design, as well as, CAD, 3D-printing and PCB design.
- Skilled in leveraging Adobe Suite and Figma to enhance visual storytelling.
- Excellent communication and presentation skills.