

L. T. MINH TRINH

+44 789 986 0833 ♦ tltminh.6305@gmail.com ♦ tltm.github.io ♦ LinkedIn

EDUCATION

University College London

MEng in Mechanical Engineering

London, United Kingdom

Sep. 2023 - Present

- Grade: First Class Honours (on track)
- Extracurricular: UCL Racing - Mars Rover team, Mechanical Engineering Society, AI Society, Fintech Society.

The National Mathematics and Science College - A-Level

A-Level

Coventry, United Kingdom

Sep. 2021 - Jul. 2023

- Grade: A*, A* and A (respectively in Maths, Further Maths and Physics)
- Awarded full academic scholarship (135% tuition) for consecutive years of A-Level.

WORK EXPERIENCE

Autonomous an Control Engineer

UCL Racing - Mars Rover team

London, United Kingdom

Oct. 2023 - Present

- Developed computer vision systems for a Mars rover in the European Rover Challenge (ERC). Fine-tuned CNN models (85% Mars rover classification accuracy) and built a marker-detection algorithm for collision avoidance, integrated into the rover's autonomous navigation stack.
- Implemented rover mobility and robotic arm control interfaces, gaining hands-on experience in hardware-software integration and laying the foundation for autonomy development.

Research Intern

FPT Software

Hanoi, Vietnam

Jun. 2024 - Aug. 2024

- Designed and simulated a 6DOF robotic arm, implementing inverse kinematics for precise motion control and pick-and-place operations.
- Developed a ROS2-Isaac Sim framework integrating camera-based object detection (ResNet50) with 3D coordinate estimation, enabling automated pick-and-place tasks in simulation.

PROJECTS

Summer Research

Metacognitive Sensitivity for Test-Time: Dynamic Model Selection

London, United Kingdom

Jun. 2025 - Aug. 2025

- First-author summer research on reinforcement learning and metacognition.
- Designed a contextual multi-armed bandit framework leveraging pre-trained model confidence as metacognitive feedback, improving accuracy by 10% on image classifiers and ~2% on vision-language models; results submitted to NeurIPS 2025 Workshop.

Independent Research Project

Adaptive Multi-Horizon Strategy Selector with Meta-RL

London, United Kingdom

Aug. 2025 - Present

- Implemented baseline trading strategies and extended them into a hierarchical RL system with regime detection, achieving Sharpe ratio gain of 0.25 and 10% drawdown reduction vs. buy-and-hold in backtests.
- Currently replacing individual strategies with RL agents; next phase integrates MAML for rapid adaptation to shifting market regimes.

TECHNICAL SKILLS

Languages

Python, MATLAB, C/C++, SQL

Tools

Fusion 360, Microsoft Excel, Git, Linux

Frameworks

Pytorch, TensorFlow, Huggingface, ROS2, Conda, Docker, Scikit-learn, Pandas