

Linus (Kin Hei) Chik

linusc9516@gmail.com | he/him | GitHub | LinkedIn | Hong Kong (SAR) Citizen

Education

Nanyang Technological University – Bachelor of Computing in Computer Science	Expected Jul 2030
St. Paul's College Hong Kong – 4 A* in Edexcel International A-Levels (Mathematics, Further Mathematics, Physics, Chemistry)	Jun 2026

Projects

Tacit Collusion in LLM Bidders | Python, pytest | Oct 2026 github.com/linusc9516/bid-pricing-collusion

- Conceived the study and built its auction harness: does letting LLM firms communicate raise prices? Four pre-registered arms: no channel, private notes, a shared workspace, an open message channel.
- Ran a pre-registered no-channel baseline of 48 sessions (2 models, 12 seeds, 50 rounds), each matched with a one-shot control. With history, DeepSeek V4.1 Flash bid about 1 to 2.3 below the Bayes-Nash bid by round 50 and GPT-6 Luna about 6 above it; neither control drifted.
- Merged a collaborator's shared-workspace and message-channel code, then built the private-notes control as a one-switch variant of it, with a log check that no prompt shows a firm the other's notes.
- Pre-registered two hypotheses in `configs/analysis.yaml` before any session ran (paired exact sign-flip tests, Holm-corrected) and ran 24 GPT-6 Luna notes sessions. Analysis in progress.

International Olympiad in Artificial Intelligence (IOAI) 2025 | PyTorch, NumPy, sklearn | Aug 2025

- Placed 2nd among all participants on a segmentation task by building a PyTorch model that handled a 50× class imbalance, raising accuracy on the critical human/wall classes by 37% through data augmentation and tuned CrossEntropyLoss weights.
- Solved 6 machine learning tasks (NLP, CV, deep learning) solo in a 2-day contest under 12-hour time and memory limits.
- Delivered a pick-and-place pipeline for the Galbot G1 robot with a team in a MuJoCo simulation, using A* path planning and inverse kinematics to navigate obstacles and organise objects on shelves.

Soular | React Native, TypeScript, Supabase | May 2025 github.com/endernoke/soular

- Built a full-stack React Native app with a team to help users discover environmental initiatives, with an AI assistant and a carbon footprint calculator.
- Cut average post load time by 46% for 100+ concurrent users (Supabase queries, client-side caching) and Android build times by 65% (Expo and Gradle).

Ulcerative Colitis Detector | PyTorch, ResNet, Flask, TorchScript | Jul 2025 github.com/linusc9516/UC_Classifier

- Reached 96% validation accuracy on 11,000+ colonoscopy images by fine-tuning ResNet18 with augmentation, weighted sampling and staged unfreezing.
- Built a Flask app for multi-image upload and real-time inference that aggregates predictions into a risk rating, with the model traced to TorchScript for CPU deployment.

Independent Study

ARENA – completed Fundamentals and Evals chapters; working through Interpretability	In progress
CS50x: Introduction to Computer Science – HarvardX	Aug 2024

Honors & Awards

Bronze Medal, IOAI 2025 – top score of 99.62 on one task; Gold Award at the Hong Kong qualifier	Aug 2025
2nd Place and Innovation Award, JA Code for Impact – Soular	May 2025

Skills

Languages: Python, TypeScript, JavaScript, C++, C, SQL

ML & Research: PyTorch, TransformerLens, inspect_ai, NumPy, Pandas, scikit-learn, Matplotlib

Tools & Platforms: Git, uv, pytest, Flask, React Native, Supabase, Expo