

Chun Yin (Oliver) Ng

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Education

University of Oxford, New College, Master of Physics (MPhys) 2025-2029 (expected)

- Predicted: First Class Honours, laboratory experience in optics, electromagnetism, electronics, and general physics.

Toot Hill College, Nottinghamshire 2021-2025

- A levels: Maths A*, Physics A*, Further Maths A*, Chemistry A*
- GCSE: 12 9s, including Maths, Further Maths, Physics, Computer Science

Academic Competitions

Distinction - UKMT British Mathematical Olympiad (Round 1) Nov 2024

- Achieved distinction in the British Mathematical Olympiad, ranking among top 25% of all qualifying participants, demonstrating a strong aptitude in mathematics.

Commendation - Ritangle 2024 Dec 2024

- Participated in the nationwide team maths challenge, collaborating in a team to come up with solutions to 30+ math puzzles.

Top Gold - British Physics Olympiad (Round 1) Nov 2024

- Achieved Top Gold (highest ranking) in the fast paced British Physics Olympiad, ranking among top 4.3% of all participants.

Experience and Skills

Private Tutor (Self-Employed) 2025-2026 (ongoing)

- Tutored four students in Science and Mathematics, where I prepare and plan learning material for each lesson, delivering material via PowerPoint slides, and presenting solutions to difficult problems clearly.
- Successfully raised predicted grades by at least 1 for each student.

Self-directed learning

- Independently taught myself basic quantum mechanics and electrodynamics during A-levels through various textbooks and online lectures, covering topics from the quantum harmonic oscillator to the hydrogen atom, demonstrating ability to independently learn difficult topics.

Work Experience at Nottingham University School of Physics & Astronomy(1 week) (July 2024)

- Gained valuable insight into the world of cutting edge academia and research, and collaborated with a team to research and present a mock research grant for the exploration of habitable exoplanets.

Machine Learning, Data Handling (Python, C# Experience):

- Developed key diagnostic and analytical skills when creating small personal coding projects.
- Completed the Neural Networks and Deep Learning course on Coursera, learning how to build deep neural network models from scratch in Python.
- Analysed the MNIST database to train and optimise neural network models to identify hand-written numbers, achieving 97% accuracy.
- Processed and handled datasets with >2GB of financial data to identify trends and patterns of different style factors of US stocks using ordinary least squares regression and backtesting.
- Built agents with evolutionary neural networks in Unity to simulate how certain characteristics evolve in prey-predator relationships.
- Developed reinforcement learning agents in Unity to simulate dynamic optimisation tasks, for example: balancing a ball on a platform, and play hide and seek.

Github link: <https://github.com/thegreatoblivion/AI-projects>