Coy Zhu
Engineering Undergraduate at Trinity College, University of Cambridge.

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Education

Trinity College, University of Cambridge	Expected 2027

Engineering BA and MEng

Grades: 4th out of 323 in University of Cambridge and 1st in Trinity College for Part IA (799/900) — 2024

Elected Senior Scholar and received the Garrett Fund Prize, for exam performance

53rd International Physics Olympiad	2023

Silver Medal — 55th out of 400+ contestants (32/50)

1st in the UK for the British Physics Olympiad Round 3 and NPL Theoretical Physics Prize

Nottingham High School	2023

4 A* in Further Mathematics, Mathematics, Physics and Chemistry

Distinction in British Mathematics Olympiad (33/60) and full marks in the Senior Maths Challenge

Gold in the UK Chemistry Olympiad Round 1 (72.5/86)

Qualified for the International Chemistry Olympiad UK team selection camp

Experience and Projects

Snake Game

Project — September 2024

- Wrote a 500 line OOP-based implementation of the popular game Snake in C++
- Stored data through extensive use of the STL. Used OpenGL for rendering game graphics
- Included several features into the UI, such as togglable help prompts.

Sepal AI — Remote

Consultant — Physics Specialist — August 2024

- Solved and wrote 8 advanced physics questions for an AI reasoning evaluation dataset
- Streamlined objectives with client AI lab via reviewal feedback loops

British Physics Olympiad — Oxford

Lecturer — April 2024

- Delivered a 2 hour lecture on AC theory to the top 14 students in the British Physics Olympiad
- Wrote 20 pages of mathematically rigorous supplementary notes with LaTeX
- Tutored a student who subsequently qualified for the International Olympiad
  of Astronomy and Astrophysics UK team selection camp

Extra-Curricular Courses and Societies

Stanford CS229 - Machine Learning — January 2025

- Rigorous and mathematical coverage of Machine Learning, including supervised and
  unsupervised models, ranging from GLMs and SVMs to Neural Networks and A2C algorithms.

IBM Quantum Learning — January 2025

- Introduced to the basics of quantum information, algorithms and applications of entanglement.

MIT 18.S096 - Matrix Calculus for Machine Learning and Beyond — August 2023

- Introduced to backpropagation and autodifferentation, and applications to gradient descent.
- Extensive exploration of computational and mathematical concepts, such as finite differences.

Trinity College Engineering Society — Cambridge

President — October 2023 – Present

- Organising several speaker events and socials for Trinity engineers.
- Reaching out to companies for potential sponsors of the society.
- Efficiently managing the committee workload and aligning team interests.

Skills

Technical: Python, NumPy, Matplotlib, Pandas, Pytorch, QisKit, C++, OpenGL, STL, SolidWorks 2022, LaTeX

Language: English (Native fluency), Chinese (Conversational fluency)