## ckz20@cam.ac.uk • +44 7491 148465 • coy-z.github.io

### 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 (64%) 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 (84%) Qualified for the International Chemistry Olympiad UK team selection camp

## Date Class

Project August 2024

**Experience and Projects** 

• Wrote a 200 line class to employ operator overloading to date objects, allowing for comparison by all comparison operators, type conversion to char\* and int (days since epoch) in C++

• Fitted class with exception handling during initialisation

Sepal AI Remote

# ${\bf Consultant-- Physics\ Specialist}$

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

# Orbyts AGN Research Paper

Nottingham

October 2022 – April 2023

# Student ResearcherIdentified composition of AGN outflow winds by processing and fitting data of

emission spectra from the XMM Newton X-ray telescope using Python

- Delivered a final presentation detailing theory, results and conclusions
- Submitted analysis to the Astronomy Theory, Observations and Methods Journal

### Societies

## Cambridge University Space Flight

Cambridge

# CAD Modelling

October 2023 - December 2023

- Developed a CAD model of the CUSF rocket nosecone using SolidWorks
- Built a mock-up of the nose cone, which was used in sponsorship events

# Trinity College Engineering Society

Cambridge

## Freshers' Representative

October 2023 - Present

- Engaging first year engineers in the college discourse and being a voice in committee
- Organised several social events for first years to network with senior years

### Skills

**Technical:** Python, C++, SolidWorks 2022, LATEX

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