

Matthew Budd

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I am a Physics Scholar in the penultimate year of my integrated masters at the University of Cambridge. Consistently learning and developing at the fastest possible rate is inherently important to me. I know my quantitative skills will be best tested in roles within Machine Learning and Data Science roles, therefore I look to stretch myself with a 2025 summer internship within these positions.

Education

University of Cambridge, BA (Hons) and MSc Physical Natural Sciences

Sept. 2022 – May 2026

- First year: 1:1 with Distinction - 76% - Maths, Physics and Materials Science for which a placing of 6/300 was achieved.
- Second year: 1:1 with Distinction – 79% - Maths, and 2 Physics Modules for which placings were 14/220 and 16/220
- Awarded the John Bowyer Buckley Prize for Academic Performance, and the Alice Violet Jenkinson Scholarship
- University Chess Team, Algorithmic Trading Society, Cambridge AI Hub, College Football Social sec, and Rugby.

Alleyn's School, London

Sept. 2020 - July 2022

- A Levels: Maths (A*), Further Maths (A*), Physics (A*), Biology (A*)
- Co-Curriculars: School football, Founder of Astronomy society, Hans Woyda Math Team Leader, and Chess Club.
- Duke of Edinburgh Gold Award, Physics Prize, UK Maths Challenge Gold Award (x6) and Kangaroo Merit Awards (x5), BPhO and BBO Gold Awards.

Building My Skillset

Programming skill

- Completed the Harvard CS 50 program, focussing on problem-structuring and strong DSA skill.
- Since, I have built my programming proficiency with personal projects including a personal website (HTML and CSS), CNN to differentiate faces from other objects with a success rate of 80% (Pytorch), and a Arduino-based visual alert to warn for train delays using live data (Python).

Cambridge AI Safety Hub's Intro to ML course

- This course covered the fundamentals and more of machine learning, with a specific focus on AI safety principles.
- This enabled me to develop a strong foundation with Pytorch, as well as develop theoretical understanding of training simple neural networks using optimisation, hyperparameters, and back-projection.
- I built in-depth practical skills performing exercises with a strong focus on interpretability, such as building my own transformer, using the TransformerLens library and thorough extensive experimentation with GPT-2.

European Space Agency Can-Sat Competition National Finalist

- I worked with a small team, as Lead Parachute Engineer, to send a miniature satellite into the atmosphere. I conducted research and in-depth modelling to ensure deployment and descent within a tight regulation window. Co-ordinated with Arduino Teams and Structural Designers to ensure a consistent approach across divisions, and to quantitatively test and analyse live data.

Work Experience

Epiris Summer Analyst

July 2024-September 2024

- Took the initiative to learn Power BI to analyse and present key data for portfolio companies, pushing the boundaries of the firm's usage of this software. Researched and led Seniors to develop their technicality, with a key focus on querying datasets.
- Presented an in-depth highly appraised case study, analysing an IM and attached Due Diligence Reports to form a balanced and data-supported argument for my final decision.
- Improved market research efficiency 300%+ by implementing a scraping algorithm to automate industry classification.

Deloitte Summer Analyst

June 2024 – July 2024

- Built Analytical proficiency working on large data sets in excel and other tools to analyse company performance and identify risk.
- Identified Excel related inefficiencies. Leading me to learn VBA macro development to streamline repetitive tasks.
- Although initially apprehensive, this was highly praised by my manager as being 'transformational' and my package of 10 macros which I deemed to be the most needed was downloaded by 10+ people.
- Worked beyond what is expected to complete the 30-hour Deloitte AI certificate between engagement tasks.

Other Initiatives

- Freshers' Week External Events Officer – I co-ordinated events outside the College for a group of 150 students.
- Led a team through the annual Ritangle Maths competition to a top 40 ranking globally.
- Completed the St. Mary's University Advanced Astrophysics course.
- Participated in a Charity Novice Boxing in front of over 700 people to raise money for The Oddballs Charity