Ben Elliot

+44 07470 005709 | Ben.Elliot27@outlook.com | ben-elliot27.github.io | Ben-elliot27 | Benjamin Elliot

Profile

A **driven** and **detail-oriented Theoretical Physics** student at UCL, on track for a **first-class MSci** degree. Demonstrates strong **analytical thinking** and **problem-solving abilities**, with a proven ability to extract insights from complex datasets using **Python** and **machine learning frameworks**. Known for **effective communication** and a **collaborative approach** in team-based projects. Seeking to apply these skills in a data-driven role within industries such as finance, tech, or research. Further information available on my **portfolio website**.

Education

- **University College London (UCL)** *Sept. 2021 – Present*
  MSci (Hons) Theoretical Physics (Year 3 of 4, Expected Graduation: 2025) London, UK
  - **Current Grade:** 79% (1st Class Honors)
  - **Relevant Modules:** Machine Learning for Domain Specialists (**88.8%**), Practical Machine Learning for Physicists (**86.6%**), Quantum Mechanics (**89.8%**), Mathematical Methods for Theoretical Physics (**90.9%**), Computing for Mathematical Physics (**94.5%**)
- **Caterham School** *2017 – 2021*
  A-levels: Mathematics (A), Physics (A*), Further Mathematics (A), Chemistry (A*)* Caterham, UK
  GCSEs: 4×9s, 1×A, 4×8s, 2×7s*

Technical Skills

- **Programming Languages & Tools:** Python, JavaScript, C#, HTML, CSS, Wolfram Mathematica, Git/GitHub
- **Frameworks & Libraries:** PyTorch, TensorFlow, Pandas, NumPy, SciPy, Flask, Matplotlib, Seaborn, Plotly
- **Data Science & Machine Learning:** Deep Learning, Neural Networks, LLMs, Bayesian Techniques, Data Augmentation, Astrophysical Data Analysis, Numerical Methods
- **Platforms & Tools:** AWS, Ori, Jupyter, Linux Command Line, Unity Engine, Excel

Projects

- **UKnowFeynman - An Online Multiplayer Card Game** Website | GitHub
  - **Description:** Developed a multiplayer card game inspired by UNO Flip to teach particle physics concepts. Originally a physical game, now available online.
  - **Technologies:** Python, Flask, Socket.IO, JavaScript, HTML, CSS
  - **Collaboration and Funding:** Collaborated with UCL lecturers for playtesting and successfully pitched to UCL Business, securing departmental funding.
  - **Outreach and Impact:** Organised playtesting events with a 95% recommendation rate, demonstrating the game's educational value and broad engagement. Moving the game online enhanced accessibility and expanded its educational reach.
- **CAMELS Multifield Dataset Analysis** Website | GitHub
  - **Description:** Performed deep learning analysis on astrophysical data to predict cosmological parameters.
  - **Technologies:** Deep Learning, PyTorch, TensorFlow, Data Augmentation, Astrophysical Data Analysis
  - **Outcome:** Demonstrated the potential of machine learning in uncovering insights about the universe. Enhanced understanding of AI optimization strategies through practical application of machine learning concepts.

Work Experience

- **Automotive Front Desk Coordinator** *June 2023 – Present*
  Surrey, UK Brook Street, Hyundai and Lexus Showrooms
  - **Responsibilities:** Greeted customers, managed phone calls, and organized the sales and service teams.
- **Work Experience** *Feb. 2020*
  London, UK Alfa Financial Software
  - **Responsibilities:** Designed and pitched a new software solution to improve company workflow, which was subsequently implemented.

Extracurricular Activities

- **Independent Research Project Winner** Caterham School *Sept. 2020*
  - **Achievement:** Awarded best project and best presentation for a research project on the origins of the universe and the theory of inflation.
- **Competitive Cycling** British National Hill Climb Championships *Oct. 2022 – Present*
  - **Achievement:** Successfully competed in the **British National Hill Climb Championships** in 2022 and 2023, finishing **53rd** out of 290 in 2023. Currently training for the 2024 event.
  - **Commitment:** Demonstrated consistent dedication to rigorous training, balancing competitive cycling with academic responsibilities.