FRANCIS MITCHELL

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Skills

- **Programming**: C++, Python, Javascript, HTML.
- **Data analysis**: NumPy, SciPy, Pandas, Jupyter Notebooks.

Education

September 2022 – Present

MSc Physics University College London

- On track to achieve a distinction.
- Studying advanced quantum theory, particle physics, high performance computing, quantum field theory, quantum communication and information, research computing with C++.
- Conducting research project on probing new physics at the Large Hadron Collider. This project involves analysing vast quantities of experimental and Monte Carlo data.

September 2018 – June 2022

BSc Physics University of Manchester

- Achieved 2:1.
- Developed strong problem-solving skills applied across a breadth of physics disciplines, including cosmology (77%), particle physics (66%), non-linear physics (69%), labs (77%).
- Built solid computational foundation demonstrated by excellent performance on computational modules: programming in C++ (92%), Python for physicists (85%).
- Produced quality pieces of written communication: BSc dissertation (77%), lab reports (77%).
- Undertook leadership role as a course representative and ambassador. The role involved collecting course feedback and relaying orally the critical points along with suggestions of action to the lecturers.

Work experience

July 2022 – September 2022

CERN Summer Student Geneva, Switzerland

- Collaborated with LHCb simulations experts to develop a Monte Carlo simulation data monitoring tool for the group using Python and Javascript. Timely development was critical since demands for computing resources are projected to surpass present commitments.
- Received positive feedback on development progress communicated to the research group experts through oral presentation and written reports.

October 2020 – Present

Tutor Manning's Tutors Ltd.

- Worked to narrow pandemic-related attainment gap in KS3 to A-level maths and sciences through one-on-one and small group tuition as part of the national tuition programme.
- Inspired pupil participation and confidence in a leadership role by encouraging pupils to recognise their strengths and use them to remedy their weaknesses.