Ishan Mehdi Hamid

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Profile

I am a student, currently excelling in my third year at university and pursuing a master's in physics. My degree is my passion; I have been involved in STEM and have been an exceptional student throughout my life, having attended high school on a scholarship. I have a particular interest in astrophysics, although I have a deep understanding of all aspects of my course, showcased by the 1st Class I achieved in my second year of university, the perfect 100 score earnt in my electronics module, as well as my group projects and reports which have been applauded by my professors and peers alike. I have also taken an interest in Python, a language that I have become proficient in due to the numerous extremely testing projects set on my course, including my current project: *"Finding a Numerical Solution to the N Body Problem"*. The challenges I have faced in my course and throughout my life have taught me to become adaptable and to apply my skills in a broad range of scenarios. I would like to offer my skill set and to apply the knowledge I have gained to contribute to research and innovation at the forefront of society, forwarding humanity and making the world a better place.

Education

Master of Science: Physics, 09/2022 – 07/2026 — **Durham University – Durham, DUR**

- 2nd year grade: 1st class
- 3rd year predicted: 1st class

Relevant modules include (but are not limited to); Advanced Lab Skills, Electronics, Theoretical Physics, Mathematical Methods in Physics, Planets and Cosmology and my Computing Project.

A-Levels: 09/2019 – 07/2021 — **The King's School Canterbury – Canterbury KEN**

- Biology – A*, Chemistry – A*, Mathematics – A*, Physics – A*

GCSE/IGCSE's: 09/2016 – 07/2019 — **The King's School Canterbury – Canterbury KEN**

- 9x grade 9/A*'s including Maths, and Triple Science
- 2x grade 7/A's in English Language and Spanish
- Scholarship Awarded

Technical Skills and Experience

Programming Languages: Python (confident), C++ (novice)
Software/Tools: Linux, Git, Jupyter, Pycharm, Excel, Adobe, Astrolab, Oscilloscopes, electronics, Telescopes, X-Ray crystallography and use of diffractometers.

Academic Projects & Extracurricular Activities

Computing Project – Using Python for: *"Finding a Numerical Solution to the N Body Problem"* entailing simulating the trajectory of a rocket through the gravity of earth and the moon and then extending that to incorporate N bodies.

Research Led Investigation – a written report on: *"The Formation and Morphology of Galaxies; The Sérsic Model"*. Which involved first hand measurements using telescopes of distant galaxies to draw conclusions on the origin of our Milky Way and the wider Universe.

Durham University Spaceflight – Teamed up with the best amateur rocket engineers on the continent to design parts for rockets that have set records as the fastest and highest reaching rocket ever built by amateurs in Europe.

Entrepreneurship with Venture Lab – attended a semester-long course on enterprising and how to start a business.

Data Science Society – Learning to interpret data and become a competent programmer alongside like-minded individuals to prepare for graduate level needs.