

## Profile

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I am a highly numerate, hardworking individual, recently graduated from the University of Leicester with a First Class Honours Degree in Physics with Astrophysics and a Year Abroad. I am looking to secure a relevant position in a leading company that will both teach and challenge me.

## Education

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### University of Leicester

**2016 - 2020**

- **First Class Bachelor's Degree in Physics with Astrophysics and a Year Abroad**

- **Year 4 Modules:** Research Project, Quasars & Cosmology, Stellar Astrophysics, Physics Challenge, Mathematical Physics 3, Astrodynamics, Radiation & Matter, Quantum Mechanics
- **Year 3:** Academic year spent studying at McMaster University, Canada as part of the 'Study Abroad Program'
- **Year 2 Modules:** Electromagnetic Fields, Mathematical Physics 2, Condensed Matter Physics, Statistical Physics, Relativity Quantum Physics & Particles, Intermediate Astrophysics & Space Science, Experimental Physics, Physics Skills & Professional Development
- **Year 1 Modules:** Mathematical Physics, Electricity & Magnetism, Waves & Quanta, Light & Matter, Laboratory Physics, Physics Specialty, Mathematical Physics 1.1, Dynamics

### Hills Road Sixth Form College, Cambridge

**2014 - 2016**

- **A Levels:** Mathematics, A; Physics, B; Chemistry, B
- **Extended Project:** Title: The Problem with a Unified Theory, A\*

### Comberton Village College, Cambridge

**2009 - 2014**

- **9 GCSEs** including, Mathematics, A\*; Physics, A; Chemistry, A; Biology, A; IT, Merit

## Work Experience

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### Coton Orchard Garden Centre, Cambridge

**2019**

- **General Assistant:** Worked full time for 5 months, taking on a range of duties in sales, delivery, stock control

### Countryside Restoration Trust, Cambridge

**2014-16**

- **Volunteer:** Initially volunteered whilst working toward the Duke of Edinburgh Silver Award criteria. I was a member of an environmental management team ensuring the long-term sustainability of Countryside Restoration Trust land. The trust teaches current and future generations the importance of conserving our natural world. Having successfully completed the Silver Award, I continued volunteering, as it was something I was passionate about and I could see the difference that even small groups could make

## Skills & Achievements

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- **Analytical:**
  - Group lead for final year astrodynamics project; evaluating multiple parameters (i.e. gravitation, thrust, launch, slingshot) utilizing a range of analytical methods to model NASA's Juno Mission to within one minute of the actual arrival time on Jupiter of the Juno Spacecraft, and achieving the top appraisal and mark
  - Final year research project using Python, VPython and Matplotlib to simulate the motion of charged particles with electromagnetic fields, dissecting both integrational systems used to plot particle trajectories and the physical interactions behind events such as  $E \wedge B$  Drift, Gyromotion and Magnetic Bottles
- **Communication:**
  - Oral presentation of astrodynamics project work given, along with a report, detailing methods used, and results generated
  - Thirty-page report written for final year research project
  - Weekly lab reports written during the academic year spent at McMaster University
- **Attention-to-detail:**
  - Leader of a team that used multiple analytical methods to accurately model NASA's Juno Mission
  - Researched, built and optimised a PC whilst studying for A levels
- **Proactive:** Significantly increased my knowledge and experience of coding, specifically Python, C, SQL, having since graduation completed a number of coding courses, including IBMs Python for Data Science, and Harvard online C and SQL courses
- **Programming Experience:** Proficient in 'General Mission Analysis Tool'; one of only 2 students in the year group to achieve a final coursework mark of 100%
- **Adaptable:** A successful year studying abroad is testament to my ability to adapt quickly to new environments and different ways of working and studying
- **Motivated:** Applied for and secured a place to study abroad for a year, only the second student in 3y to be accepted by McMaster University
- **Passionate:** Successfully completed the Duke of Edinburgh Bronze and Silver Awards, including over 2 years of volunteering at the Countryside Restoration Trust
- **Creative:** An accomplished guitarist, I compose original music scores

## References

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**Dr Michael Goad (Personal Tutor)**, Reader, Department of Physics & Astronomy, University of Leicester, University Road, Leicester, LE1 7RH, mg159@le.ac.uk, +44(0)1162 231 293

**Dr Jonathan D. Nichols (Research Advisor)**, Reader, Department of Physics & Astronomy, University of Leicester, University Road, Leicester, LE1 7RH, jdn4@le.ac.uk, +44(0)1162 525 049