

Orson Hart

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Qualifications

GCSEs: 11 Grade 9 GCSEs. (2018)
A Levels: 4 A*s in Maths, Further Maths, Physics, and Computer Science. (2020)
Degree: MMath in Mathematics from University of Oxford. (To be completed 2024)

Achievements

- Ranked 4th out of a cohort of 196 in the Oxford Prelims Maths exams. (2021)
- Received Ronald Bartlett Prize award. (2021)
- Awarded Undergraduate Research Bursary by the London Mathematical Society. (2022)
- Awarded Rokos Award Internship by Pembroke College (2022)

Experience

- Completed a summer research project under the supervision of Peter Howell. (2022)
- Familiar with using Python, Mathematica, and L^AT_EX.
- Completed individual and group academic projects and delivered public presentations.
- Provided data analysis for the UK Met Office.
- Maths Rep. at Pembroke College, Oxford. (2021-2022)
- Member of the Oxford Maths Ambassadors team. (2021)

Projects

2022: Summer Research Project

Worked with Prof. Peter Howell to complete active research on the effects of pressure-dependent contact resistance on a physical system of metal pins in frictional thermoelastic contact with a moving surface. This project developed skills in mathematical modelling, differential equations, stability analysis, and computational mathematics.

2018-2020: Exeter Maths Certificate

As part of the EMC program I completed 3 academic projects on a range of topics.

Graph Theory: Explored the field of graph theory and its applications and presented the results to a large audience.

Met Office: Worked with the UK Met Office to analyse weather station data in order to account for anomalous results, and presented our findings to a team of experts.

Machine Learning: An independent project which broadened my understanding of machine learning and developed skills in implementing neural networks.

2020: Pycross

A picross puzzle suite developed using Python and pygame. This project developed skills in programming, algorithm design, software development and documentation.