

# James Hirst

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## Qualifications:

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- MMath, Mathematics Master's Degree, University of Cambridge, Jesus College (2021-22)
  - Pass with Distinction (79%)
  - Modules: General Relativity, Black Holes, Quantum Field Theory, Cosmology, String Theory and The Standard Model
- BA, Mathematics Degree, University of Cambridge, Jesus College (2018-2021)
  - 1<sup>st</sup> Class in third year (position: 14/222, percentage: 86%)
  - Jesus College Mathematics Award in second year for being top performer
  - 1<sup>st</sup> Class in first year (position: 61/232, percentage: 72%)
- A-Level: 5x A\*- Maths, Further Maths, Additional Further Maths, Physics, Chemistry
- AS- Level: 1x A- Economics
- IGCSE/ GCSE: 14x A\*'s and an A

## Employment and Experience:

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- Software Engineer, Microsoft, (Sep 2022-Present)
  - Working on Azure to deploy a voicemail solution for a large telco. Using Kubernetes infrastructure for maintenance and debugging, writing Python automation scripts to manage and fix CVEs, and working with Rust to improve the solution functionality.
  - Worked with Java and JavaScript to maintain a workplace messaging app sold to small businesses that integrates with users mobile numbers.
- Built a personal website using React, <https://www.jamesjhirst.com/>.
- Software Engineer at Microsoft, 8-week virtual internship writing Python scripts to improve the automation of VM deployment and management for products in the telecoms sector.
- Lead a team to win the international [BL4S](#) competition with a project designed to investigate Einstein's Special Theory of Relativity. Subsequently, completed data collection using a particle accelerator at CERN and published a scientific paper in IOP Journal and on the CERN website.
- Machine Learning Ecology project using Detectron2 to predict the location of tree crowns to improve estimates of carbon store in forests and other locations. Resulted in a scientific paper published in a variety of journals.
- Restaurant manager with Hotelplan during a winter season, managing 20 staff of varying ages. Achieved 'Mountain Spirit Award' in an area of 500 employees for performance.
- Private tutoring for Maths as well as Explore Learning Colchester Tutor.

## Volunteer Work:

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1. Shark Trust- machine learning and data management for an outreach project.
2. Kids Inspire- raising awareness for mental instabilities and disabilities in children.
3. Chelmsford Boys Club- painting and renovating youth rooms.
4. Youth Enquiry Centre Colchester- gardening and maintenance of the centre.

## Personal Qualifications:

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Vice School Captain  
BPO Round 1- Gold Award (Top 50 Nationally)  
PADI Open Water Certified

Cambridge University Ski Freestyle Captain  
Wado-Ryu Karate- 2nd Dan Black belt  
National Citizenship Service Award