

# Oliver Simmonds

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## EDUCATION

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### University of Southampton - MSc in Artificial Intelligence *(July 2023 - Present)*

- Recipient of the Richard Newitt Postgraduate Taught Bursary in recognition of receiving the highest average mark in the School of Electronics and Computer Science

### University of Bristol - BSc in Mathematics *(September 2020 - July 2023)*

- First Class Honors Degree - 81%

### Peter Symonds College - A-levels *(August 2018 - June 2020)*

- Mathematics: A\*, Further Mathematics: A\*, Physics: A, EPQ: A

## KEY SKILLS

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- Proficiency with Python, R, Java, Power BI and Excel.
- Leadership and confidence demonstrated by my position as a University BUCS captain.
- Eagerness to learn and progress in my field of interest.
- Quick to learn skills and adapt to new environments.

## RELEVANT WORK EXPERIENCE

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### University of Southampton - Air Quality Research Internship *(January 2024 - Present)*

- Funded by local councils to work alongside an associate professor to investigate PM2.5 patterns across Hampshire.
- Utilised data mining techniques to discover key insights that the councils can use to improve local air quality.
- Found that PM2.5 is correlated with wood burning but on a longer timeframe, PM2.5 is mainly driven by isolated, highly polluting events.

### Systema Nova - Performance Model Engineer *(March - April 2023)*

- Developed, in a team of four, a profit distribution model for one of Europe's largest angel-based venture capitalist programs, utilising advanced statistics and optimization techniques.
- Produced Python and Excel-based models, enabling easy deployment and customization for non-technical users.
- Produced in-depth reports and presentations using rigorous statistical techniques to demonstrate both the model's strengths and potential weaknesses.

### University of Bristol - Mathematical Programming Teaching Instructor *(January - May 2023)*

- Assisted university students to develop understanding of key Python topics and help them grasp challenging concepts.

### BigHand - Data Science Intern *(July - August 2022)*

- Developed a revenue prediction model using historical pipeline data which outperformed the existing model.
- Gained insights of how machine learning algorithms were implemented to price products.
- Acquired proficiency in Excel, Power BI, and gained exposure to a software company's work environment.

## PROJECTS

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### University of Bristol Artificial Intelligence Project

#### Title: Investigating Generalisation of Reinforcement Learning Algorithms *(April 2023)*

- Co-authored a research project gaining greater insight on both machine learning and the fundamentals of generalisation, an area of AI which is becoming of increasing importance.

### University of Bristol Mathematical Programming Project

#### Title: Code Breaking with Statistical Physics *(May 2022)*

- Collaborated with peers to create Python algorithms which could break encrypted messages using statistical methods.

### Extended Project Qualification

#### Title: Can complex numbers be used to counter technological threats to RSA encryption? *(December 2019)*

- Extended my knowledge of mathematical concepts and their applications to the real world through the creation of a dissertation style project.

## INTERESTS

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### University of Bristol Futsal Vice President *(May 2022 - July 2023)*

- Created and ran a women's team to encourage diversity in the society.
- Played a fundamental role in making the society profitable through growing the size of the club and securing sponsorship.
- Led squads as captain and qualified to the European Universities Championships, showcasing teamwork and leadership.

### Artificial General Intelligence Safety Group *(October 2022 - Present)*

- Co-founded an AGI Safety group to collaboratively research and discuss this topic of interest with students.
- Working as a group through an AGI Safety Fundamentals course.