

## Research Interests

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My main research interests are in **algorithmic graph theory** and **computational complexity**, with a particular focus on parameterised complexity and problems with real-world applications. I am also interested in graph matching problems and graph theory more generally.

## Awards and Scholarships

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- Won the annual **Haya Freedman Prize for the best dissertation** produced by a student on the MSc in Applicable Mathematics at the London School of Economics from a cohort of 31 students.
- Awarded a **PhD Studentship** (£56244) by the Engineering and Physical Sciences Research Council (EPSRC).
- Successfully applied for a **Travel Scholarship** (\$900) from TCS Women to attend the 50th Annual ACM Symposium on the Theory of Computing (STOC 2018) in Los Angeles, California.
- Obtained **funding from the Sigma Network** (£2400) in 2015 to develop online mathematics revision resources for economics undergraduate students after proposing the idea to Newcastle University's E-Learning Unit.
- Secured a **Vacation Research Scholarship** (£1456) from Newcastle University to work on a mathematical modelling research project during the summer of 2014.

## Education

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### PhD in Computer Science

*University of Glasgow*

2017 – 2021

**Award:** EPSRC PhD Scholarship

**Thesis Title:** Parameterised Algorithms for Edge-Coloured Graphs

**Supervisors:** Dr Kitty Meeks and Prof. David Manlove

### MSc in Applicable Mathematics - *Graduated with Distinction*

*London School of Economics and Political Science*

2015 – 2016

**Award:** Haya Freedman Prize for the best dissertation in mathematics

**Thesis Title:** Covering Edge-Coloured Graphs by Monochromatic Paths and Cycles

### BSc (Hons) in Economics and Mathematics

*Newcastle University*

2012 – 2015

**Award:** Newcastle University Vacation Research Scholarship

## Presentations

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### British Combinatorial Conference

*Subgraph Counting in Practice*

**University of Birmingham**

29 July – 2 August 2019

### STOC 2018

*Subgraph Counting in Practice (Poster)*

**Los Angeles, California**

25 – 29 June 2018

### 25th Postgraduate Combinatorial Conference

*Partitioning edge-coloured graphs into monochromatic subgraphs*

**London School of Economics**

4 – 6 June 2018

### 2018 Colloquia in Combinatorics

*Counting Subgraphs Efficiently (Poster)*

**London**

8 – 9 May 2018

### FATA Research Seminar

*Counting Subgraphs Efficiently*

**University of Glasgow**

10th April 2018

### CETL-MSOR Conference 2015

*Online Maths Revision Resources for Economics Students*

**University of Greenwich, London**

8 – 9 September 2015

## Academic Events Attended

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- AlgoUK Workshop, Liverpool University (September 2018)
- One-Day Meeting in Combinatorics, University of Oxford (May 2018)
- Glasgow Workshop on Mechanism Design and Behavioural Economics, University of Glasgow (May 2018)
- Scottish Combinatorics Meeting 2018, University of Edinburgh (April 2018)
- AlgoUK Workshop, King's College London (February 2018)
- MATCH-UP 2017, Microsoft Research New England (April 2017)

## Employment

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### Heriot-Watt University

*Research Assistant - Psychology*

**Edinburgh, UK**  
*April–September 2019*

- Single-handedly developed and tested a new computer role play software program for use in investigating children's social vulnerabilities.
- Worked in collaboration with a team of psychologists to design the software tool in line with their requirements.

### University of Glasgow

*Course Demonstrator*

**Glasgow, UK**  
*January – May 2019*

- Assist in lab demonstration classes for Algorithms and Data Structures master's degree course.

### Inform Information Systems Limited

*Software Developer*

**Maidenhead**  
*February – October 2017*

- Developed the company's first automated software test scripts.
- Implemented multiple software systems.

## Technology Summary

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- **Coding:** Java, SQL
- **Environments:** Windows, Linux, Microsoft SQL Server