Frances Cooper | CV

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Education

University of Glasgow   **Glasgow, Scotland**
PhD Computing Science   *2015 - present*
- Thesis title: Open problems in the area of matching under preferences
- School of Computing Science research student representative
- Tutor; member of several committees (see *Committees* section)

University of Glasgow   **Glasgow, Scotland**
MSc Software Development, Distinction   *2013 - 2015*
- Member of committee (see *Committees* section)

Open University   **UK-wide**
BSc Mathematics, 1st Class (Hons)   *2009 - 2013*
- Distance learning degree whilst working

Internships and Outreach

Amazon Internship   **Edinburgh, Scotland**
3 month internship at Amazon Development Centre, Edinburgh   *April - June 2018*
- Developed new methods to allow advertisers on Amazon to understand who their customers are. This work encompassed graph theory, algorithms and machine learning.

(future) Instructor for CodeFirst:Girls   **Glasgow, Scotland**
Enterprise to increase the number of women in tech.   *October - December 2018*

Awards and Scholarships

3 Minute Thesis Finalist: *2017*
- Competition to explain your thesis to a non-technical audience
- *University of Glasgow Finalist* and *College of Science and Engineering Commendee*

EPSRC PhD Scholarship: *2015 - 2019*
- Funded PhD in Computer Science, University of Glasgow (3.5 years)

Confucius Institute Scholarship, China: *Summer 2015*
- Won a scholarship after previous Chinese language study
- Attended a *Language and Culture Exchange* at *Nankai University in Tianjin, China*

Class Prize: *2013 - 2015*
- MSc Software Development *highest overall grade (21.2 / 22.0)*

Grace Hopper Prize: *2013 - 2015*
- MSc Software Development *highest achieving female student*

SFC MSc Scholarship: *2013 - 2015*
- Funded MSc in Software Development, University of Glasgow

Computing skills

General computing skills: Java, Python, Scala, Gurobi, Bash, Django, HTML, LaTeX, Git

Areas of interest: Algorithms & Complexity, Integer/Constraint Programming, Optimisation

Conference Presentations

SEA conference talk - paper presentation   **L'Aquila, Italy**
Symposium on Experimental Algorithms   *June 2018*
○ Paper title: A 3/2-Approximation Algorithm for the Student-Project Allocation Problem

BCTCS conference talk   **Royal Holloway, England**
British Colloquium of Theoretical Computer Science   *March 2018*
○ Title: A 3/2-Approximation Algorithm for the Student-Project Allocation Problem

Invited speaker AWIDM   **Cape Town, South Africa**
Invited speaker at African Women in Discrete Mathematics conference *January 2018*
○ Encouraging women graduates into academic research roles

SICSA poster presentation   **Dundee, Scotland**
The Scottish Informatics & Computer Science Alliance   *June 2017*
○ Title: Hard Variants of the Student-Project Allocation Problem *shortlisted

MATCH-UP poster presentation   **Boston, USA**
Microsoft Research Centre MATCH-UP conference   *April 2017*
○ Title: Integer Programming for Student-Project Allocation

Publications

○ F. Cooper and D. Manlove. A 3/2-Approximation Algorithm for the Student-Project Allocation Problem. In *Proceedings of Leibniz International Proceedings in Informatics (LIPIcs)* 103:8:1-8:13, 2018. Available from `http://drops.dagstuhl.de/opus/volltexte/2018/8943`

○ The full version of above is available as Technical Report number 1804.02731, Computing Research Repository, Cornell University Library, 2018. Available from http://arxiv.org/abs/1804.02731.

Committees

School of Computing Science Research Students Committee: *2017 - 2018*

BCTCS conference 2018 organising committee: *2017 - 2018*

College of Science and Engineering Graduate School Board: *2017 - 2018*

Athena SWAN committee (promoting gender equality in CS):   *2015 - 2016*

MATCH-UP and COST Action conference 2015 organising committee: *2015 - 2016*

Languages

English: Native proficiency

Mandarin: Beginner/Intermediate   *Hanyu Shuiping Kaoshi (HSK) level 2 certificate*

British Sign Language (BSL): Beginner   *level 1 certificate*

Experience

Whilst studying for my BSc I worked and volunteered in the care and education sectors.