

Frances Cooper | CV

School of Computing Science, Sir Alwyn Williams Building
University of Glasgow, Glasgow, G12 8RZ, UK

✉ f.cooper.1@research.gla.ac.uk • 📄 fmcooper.github.io

Education

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|---|--|
| University of Glasgow
<i>PhD Computing Science</i> | Glasgow, Scotland
2015 - present |
| <ul style="list-style-type: none">○ Thesis title: Open problems in the area of matching under preferences○ School of Computing Science research student representative○ Tutor (see <i>Teaching</i> section); member of several committees (see <i>Committees</i> section) | |
| University of Glasgow
<i>MSc Software Development, Distinction - Class Prize - Grace Hopper Prize</i> | Glasgow, Scotland
2013 - 2015 |
| <ul style="list-style-type: none">○ Member of committee (see <i>Committees</i> section) | |
| Open University
<i>BSc Mathematics, 1st Class (Hons)</i> | UK-wide
2009 - 2013 |
| <ul style="list-style-type: none">○ Distance learning degree whilst working (see <i>Experience</i> section) | |

Awards and Scholarships

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|--|-------------|
| 3 Minute Thesis Finalist: | 2017 |
| <ul style="list-style-type: none">○ Competition to explain your thesis to a non-technical audience○ <i>University of Glasgow Finalist</i> and <i>College of Science and Engineering Commendee</i> | |
| EPSRC PhD Scholarship: | 2015 - 2019 |
| <ul style="list-style-type: none">○ Funded PhD in Computer Science, University of Glasgow (3.5 years) | |
| Confucius Institute Scholarship, China: | Summer 2015 |
| <ul style="list-style-type: none">○ Won a scholarship after previous Chinese language study○ Attended a <i>Language and Culture Exchange</i> at <i>Nankai University in Tianjin, China</i> | |
| Class Prize: | 2013 - 2015 |
| <ul style="list-style-type: none">○ MSc Software Development <i>highest overall grade (21.2 / 22.0)</i> | |
| Grace Hopper Prize: | 2013 - 2015 |
| <ul style="list-style-type: none">○ MSc Software Development <i>highest achieving female student</i> | |
| SFC MSc Scholarship: | 2013 - 2015 |
| <ul style="list-style-type: none">○ Funded MSc in Software Development, University of Glasgow | |

Internships, Enterprises and Teaching

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|---|--|
| Founder of Glasgow Women in Computing Science (GWiCS)
<i>Networking and talks supporting career progression for women in CS</i> | Glasgow, Scotland
August 2018 - Present |
| Creator of www.program-able.org
<i>A CS tutorial website aimed at improving code efficiency</i> | Glasgow, Scotland
2018 |
| <ul style="list-style-type: none">○ Articles on e.g. Command line tools, Git, Regex, Sed, Grep | |
| Lead Instructor for CodeFirst:Girls
<i>Enterprise to increase the number of women in tech.</i> | Glasgow, Scotland
September 2018 - present |
| <ul style="list-style-type: none">○ Teaching HTML, CSS, UX, Git & version control, Bootstrap, Javascript and jQuery | |
| Amazon Internship
<i>3 month internship at Amazon Development Centre, Edinburgh</i> | Edinburgh, Scotland
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.

Various tutoring and outreach positions

Glasgow, Scotland

For example:

October 2015 - Present

- Hacky Hour and Compumatch - Sharing computing skills with researchers in other departments
- Teaching cryptography to schoolchildren (Quantum Cryptography School)
- Teaching & marking Java Programming at Masters level

Computing skills

General computing skills: Java, Python, Gurobi, Bash, HTML, CSS, Bootstrap, \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

Committees

College of Science and Engineering Strategic Advisory Board: *2018 - 2019*

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

Experience

Whilst studying for my BSc I worked in special needs and mainstream schools, and volunteered with a drug agency and DeafblindUK.

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>.