

Frances Cooper | CV

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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 preferencesSchool of Computing Science research student representativeTutor (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 studyAttended 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 |
| Lead Instructor for CodeFirst:Girls
<i>Enterprise to increase the number of women in tech.</i> | Glasgow, Scotland
September - December 2018 |
| <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 |
| <ul style="list-style-type: none">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
<i>For example:</i> | Glasgow, Scotland
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, \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>.