

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 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</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 | |

Internships and Teaching

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|---|---|
| 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. | |
| (future) Lead Instructor for CodeFirst:Girls
<i>Enterprise to increase the number of women in tech.</i> | Glasgow, Scotland
October - December 2018 |
| <ul style="list-style-type: none">○ Teaching HTML, CSS, UX, Git & version control, Bootstrap, Javascript and jQuery. | |
| Various tutoring and outreach positions
<i>For example:</i> | Glasgow, Scotland
October 2015 - Present |
| <ul style="list-style-type: none">○ (future) Hacky Hour - Sharing computing skills with researchers in other departments○ Teaching cryptography to schoolchildren (Quantum Cryptography School)○ Teaching & marking Java Programming at Masters level | |

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 Nankai University in Tianjin, China | |
| 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 | |

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

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

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

British Sign Language (BSL): Beginner

level 1 certificate

Experience

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