

# HEIDI HOWARD

Email: hh360@cam.ac.uk

## EDUCATION

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**Pembroke College, Cambridge University** *October 2014 - present*  
PhD in Computer Science, Supervisor: Jon Crowcroft  
**Pembroke College, Cambridge University** *2010-2014*  
BA Computer Science, Dissertation: Analysis of Raft Consensus  
**Southfield School for Girls, Northamptonshire** *2003-2010*  
**A levels:** Mathematics, Further Mathematics, Physics (A\*) *2010*  
Information Communication Technology, Biology (A)  
**AS Level:** Geography (A) *2009*

## PUBLICATIONS

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Hamed Haddadi, Heidi Howard, Amir Chaudhry, Jon Crowcroft, Anil Madhavapeddy, Derek McAuley, Richard Mortier

**Personal Data: Thinking Inside the Box**

In Proceedings of the 5th decennial Aarhus conference: Critical Alternatives, August 2015

Heidi Howard, Malte Schwarzkopf, Anil Madhavapeddy and Jon Crowcroft

**Raft Refloated: Do We Have Consensus?**

ACM SIGOPS Operating Systems Review, January 2015

Heidi Howard

**ARC: Analysis of Raft Consensus**

University of Cambridge, Computer Laboratory, UCAM-CL-TR-857, August 2014

Charalampos Rotsos, Heidi Howard, David Sheets, Richard Mortier, Anil Madhavapeddy, Amir Chaudhry, Jon Crowcroft

**Lost in the Edge: Finding Your Way with DNSSEC Signposts**

In Proceedings of the 3rd USENIX Workshop on Free and Open Communications on the Internet, August 2013

## SELECTED TALKS, DEMOS & POSTERS

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**Coracle: Evaluating consensus at the internet edge** - Poster at ACM SIGCOMM, London, August 2015

**Unanimous: In Pursuit of Consensus at the Internet Edge** - Microsoft Research PhD Summer School, Cambridge, July 2015 and EuroSys Student Workshop, Bordeaux, April 2015

**Life on the Edge: New Abstractions for Edge Network Distributed Computing** 2nd Oxbridge Women in Computer Science Conference, Oxford University, March 2015

**Providing Security for Wireless Community Networks** - ACM MobiCom Workshop on Lowest Cost Denominator Networking for Universal Access, Miami, September 2013 and Workshop on Participatory Networks and Privacy: New Research Issues, Nottingham, September 2013

**Signposts: Taking back the dark edges of the internet** - Open Hardware, Software, Internet & Jobs, Cambridge, March 2013

**Signposts: End-to-End Networking in a World of Middleboxes** - Digital Futures 2012: 3rd Annual Digital Economy All Hands Conference, Aberdeen, October 2012

## AWARDS

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ACM Student Research Competition Winner at SIGCOMM 2015, August 2015

Best presentation award, 2nd Oxbridge Women in Computer Science Conference, Oxford University, March 2015

2nd Prize in the 2nd year poster competition at BCSWomen Lovelace Colloquium, Nottingham, April 2013

DevCSI Competition Winner at BCSWomen Lovelace Colloquium, Bath, April 2012

Selected to participate in:

- ACM Student research competition and Mentoring moments both at SIGCOMM, London August 2015 [with travel award]
- Cyber Security Summer School, Estonia, July 2015
- Microsoft Research PhD Summer School, Cambridge, July 2015
- EuroSys Student Workshop, Bordeaux, April 2015 [with travel award]
- SIGPLAN Programming Languages Mentoring Workshop at POPL, Mumbai, January 2015 [with travel award]
- BCSWomen Lovelace Colloquium, Nottingham, April 2013 [with travel award]
- SIGPLAN Programming Languages Mentoring Workshop at POPL, Rome, January 2013 [with travel award]
- Google European Android Developments Camp, London, August 2012 [with travel award]
- IBM Best Student Recognition Event, Brussels, July 2012 [with travel award]
- BCSWomen Lovelace Colloquium, April 2012 [with travel award]

## WORK EXPERIENCE

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### **Raspberry Pi Summer Project, Cambridge University**

June 2014 - Oct 2014

*Intern*

*Cambridge, UK*

Developing a educational platform for learning Python in the Raspberry Pi.

### **System Research Group, Cambridge University**

Sept 2012 - Oct 2013

*Research Assistant*

*Cambridge, UK*

- Working on the Public Access Wifi Service, customising OpenWRT firmware for community Wi-Fi sharing and bandwidth measurement
- Working on project Signpost, a distributed name service with secure tunnelling for devices on the edge network. Highlights include presenting the project alongside speakers such as Jon “maddog” Hall
- Joining OCaml Labs group and working towards building a sustainable platform for the language, particularly contributing towards the Real World OCaml book

### **System Research Group, Cambridge University**

June 2012 - Aug 2012

*Undergraduate Research Opportunity Project*

*Cambridge, UK*

- Testing the accuracy of network measurements performed for project Signpost for ACM SIGCOMM 2012 demo and researching new network traversal tactics for project Signpost.

## SERVICE

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Student Volunteer at ACM SIGCOMM, London	<i>August 2015</i>
EuroSys Shadow Program Committee Member	<i>Jan 2015</i>
Graduate Student Forum representative	<i>Oct 2014 - present</i>
Staff Student Consultative Committee member	<i>Oct 2014 - present</i>
System Research Group Talklet Organiser	<i>June 2014 - present</i>
Student Volunteer at 19th ACM SIGPLAN ICFP, Gothenburg	<i>September 2014</i>
Student Volunteer at 18th ACM SIGPLAN ICFP, Boston	<i>September 2013</i>
Undergraduate representative for Women@CL	<i>2011-2014</i>
Committee Member for Stokes Science Society	<i>2011-2014</i>
College representative for Cambridge Student Community Action	<i>2011-2012</i>
Communications officer for college drama society	<i>2010-2011</i>

## TEACHING

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Lecturer & Coordinator for the Research Student Lecture Series	<i>Michaelmas 2015</i>
Supervisor for Foundations of Computer Science	<i>Michaelmas 2014 &amp; 2015</i>
Ticker for SML Programming Practicals	<i>Michaelmas 2014 &amp; 2015</i>
Supervisor & Demonstrator for Sutton Trust Summer School	<i>Summer 2013 &amp; 2014</i>
Training in supervising final year projects, advanced supervising and lecturing	<i>Throughout 2014-2015</i>

## REFERENCES

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Omitted from online version