

# Shereen Khoja

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## Education

- 1998-2003 **Ph.D. Computer Science**, Lancaster University, Lancaster, UK.  
Advisor: Roger Garside.  
Dissertation Title: "An Arabic POS Tagger".
- 1997-1998 **M.Sc. Computer Science (Artificial Intelligence)**, University of Essex, Colchester, UK.
- 1992-1997 **B.Sc. Computer Science**, King Abdul Aziz University, Jeddah, Saudi Arabia.

## Employment

- Fall 2008 – present **Associate Professor of Computer Science**, Pacific University, Forest Grove, OR.
- Fall 2002 – 2008 **Assistant Professor of Computer Science**, Pacific University, Forest Grove, OR.
- 1991 – 2001 **Postgraduate Teaching Assistant**, Lancaster University, Lancaster, UK.
- 1999 **Undergraduate Project Supervisor**, Lancaster University, Lancaster, UK.

## Awards

### Grants and Financial Awards

- April 2010 **G2CS - Girls Gather for Computer Science**. Developing a modular summer day camp to introduce girls to computer science, with female scientists and industry professionals as leaders. National Science Foundation (Shereen Khoja, PI, Co-PIs: Juliet Brosing, Jeffrey Barlow), \$554,248. Peer-reviewed.
- 2007-2008 **Blogging in the Middle East**. Summer Institute Fellow for the Berglund Center for Internet Studies, \$3,000. Peer-reviewed.
- 2005-2006 **An Online Part-of-Speech Tagger**. Faculty Development Grant, \$2,500.
- 2003-2004 **Neural Network Part-of-Speech Tagger for Arabic**. Computing Research Association's Committee on the Status of Women in Computing Research (CRAW), \$2,000. Peer-reviewed.

### Honors

- 2006 **Junior Faculty Award**, Pacific University.  
Presented by Pacific University in recognition of outstanding service as a teacher and mentor to the students of Pacific University and for significant contributions to the academic life of their community early in their professional career.

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## Publications

- 2012 Khoja, S., Wainwright, C., Brosing, J. 2012. Changing girls' attitudes towards computer science. *Journal of Computing Sciences in College*, 28, 1 (October 2012), 210-216. Peer-reviewed.
- 2009 Khoja, S. 2009. An RSS Feed Analysis Application and Corpus Builder. *In Proceedings of the Second International Conference on Arabic Language Resources and Tools*, ISBN: 2-9517408-5-9. April 2009. Also appeared in *Interface on the Internet*, the electronic journal of the Berglund Center for Internet Studies. Peer-reviewed.
- 2003 Khoja, S., Garside, R., Knowles, G. 2003. An Arabic Tagset for the Morphosyntactic Tagging of Arabic. *Chapter in "A Rainbow of Corpora: Corpus Linguistics and the Languages of the World"*, edited by Andrew Wilson, Paul Rayson, and Tony McEnergy; Lincom-Europa, Munich. Peer-reviewed.
- 2001 Khoja, S. 2001. APT: Arabic Part-of-speech Tagger. *In Proceedings of the Student Workshop at the Second Meeting of the North American Chapter of the Association for Computational Linguistics (NAACL2001)*, Carnegie Mellon University, Pittsburgh, Pennsylvania. Peer-reviewed.
- 2001 Khoja, S., Garside, R. 2001. Automatic Tagging of an Arabic Corpus Using APT. *Paper presented at the Arabic Linguistic Symposium (ALS)*, University of Utah, Salt Lake City, Utah. Peer-reviewed.

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## Workshops, Panels, and Talks

- 2013 Tenison, R., Khoja, S., Levenhagen-Seeley, J., and Harrison, P. 2013. Panel: It takes a village, but together we can make a difference. *J. Computing Sciences in Colleges*. In press.
- 2013 Wilson, B., Hansen, D., Bryant, R., Orr, G., Khoja, S., and Iyer, G. 2013. Panel: MOOCs and their impact on CS Education. *J. Computing Sciences in Colleges*. In press.
- 2012 Khoja, S., and Floyd, T. 2012. Girls Gather for Computer Science. *Presentation at the Microsoft Women's Employee Resource Groups' Employee Giving Campaign*. Redmond, Washington.
- 2012 Khoja, S., Floyd, T., and Brosing, J. 2012. Girls Gather for Computer Science. *Presentation to the Pacific University Board of Trustees*.
- 2008 Khoja, S. 2008. Advances in Arabic Computational Linguistics. *Willamette Mathematics Colloquium Presentation*. April 2008.
- 2008 Dake, P., Bryant, R. Khoja, S., and Orr, G. 2008. Workshop: Designing a Collaborative Cross-Campus Airport (or Other Transit) Simulation Project. *J. Computing Sciences in Colleges*, 24, 2.
- 2008 Richmond, G., Khoja, S., Bentley, A., and Grigoreanu, V. 2008. Panel: Erasing the Gender Border in Science. *Gender Studies Symposium at Lewis & Clark College*.
- 2005 Khoja, S. 2005. A Morphosyntactic Tagger for Arabic. *Pacific University Faculty Forum*. October 2005.

- 2003 Khoja, S. 2003. Invited Talk. Arabic Corpus Linguistics. *Talk given to Computer Science and Linguistics faculty and researchers at the University of Leeds, UK.*

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## Posters

- 2012 Khoja, S., Brosing, J., Wainwright, C., and Barlow, J. 2012. Girls gather for computer science (G2CS). *43rd ACM Technical Symposium on Computer Science Education (SIGCSE 2012)*, Raleigh, NC. Peer-reviewed, published abstract.
- 2012 Brosing, J., and Khoja, S. 2012. Girls Gather for Computer Science. *Oregon Technology and Education Network*, Pacific University, OR. Peer-reviewed.
- 2012 Floyd, T., and Khoja, S. 2012. Girls Gather for Computer Science. *37<sup>th</sup> Annual Oregon Indian Education Association Conference*. Grand Ronde, OR.

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## Courses Taught

**Introduction to Computer Science I:** Programming in C++ using Visual Studio.

**Introduction to Computer Science II:** Object oriented programming in C++.

**Data Structures:** Introduction to Data Structures in C using Eclipse on Linux, Makefiles, Valgrind, and Subversion.

**Algorithm Design and Analysis:** Asymptotic complexity, techniques of analysis, algorithmic strategies, graph theory, and other selected topics.

**Human Computer Interaction:** Introduction to HCI, methods to develop and assess interfaces, interaction styles, and design considerations.

**Computer Architecture:** Computer arithmetic, Boolean algebra, gate networks, logic design, introduction to IA-32/64 & MIPS assembly language programming, I/O devices, pipelines instruction execution, bus structure, and microprogramming.

**Software Engineering I & II:** Introduction to the theory behind software development including software architecture, requirements analysis, prototyping, project management tools, verification and validation, and defect management.

**Artificial Intelligence:** Introduction to the field of AI including predicate calculus, state space search, knowledge representation, and robotics.

**Client/Server Programming in Java:** Programming in Java, multithreading networking, servlets, JavaServer pages, and remote procedure calls.

**Our Digital World:** Exploration of the impact and effect of the Internet on all aspects of our lives as global citizens by examining the ethical, cultural, economic, and political aspects of the Internet.

**Software Tools:** Introduction to software tools used to gather, manipulate, analyze, and graph data. The software covered includes Excel, SPSS, Word, and PowerPoint.

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## Activities and Service

### Selected University Service

- 2008 – 2009, Spring 2011 – 2013 **Department Chair.** Mathematics and Computer Science. Pacific University.
- 2013 **Search Committee Chair.** Visiting Professor of Mathematics. Pacific University.
- 2011 – 2012 **Search Committee.** Assistant Professor of Mathematics. Pacific University.
- 2010 – 2011 **Search Committee.** Chief Information Officer. Pacific University.
- 2010 – 2011 **Search Committee.** Assistant Professor of Mathematics. Pacific University.
- 2008 – present **Advisory Board Member.** Berglund Center for Internet Studies. Pacific University.
- Spring 2008 – 2009 **Faculty Senate.** Pacific University.
- 2007 – 2008 **Search Committee.** Assistant Professor of Mathematics. Pacific University.
- 2007 – 2008 **Facilities Planning Committee.** Natural Sciences Division. Pacific University.
- 2006 – 2008 **Strategic Planning Committee.** Natural Sciences Division. Pacific University.
- 2005 – 2006 **Search Committee.** Assistant Professor of Mathematics. Pacific University.
- 2005 – 2006 **Search Committee.** Assistant Professor of Computer Science. Pacific University.

### Professional Service

- 2013 **Conference Chair, Site Chair, Speakers Chair.** Consortium for Computing Sciences in Colleges - Northwest Region (CCSC-NW).
- 2012 **Papers Chair.** Consortium for Computing Sciences in Colleges - Northwest Region (CCSC-NW).
- 2012 **Community Committee on STEM Education.** Forest Grove, OR.
- 2012 **Judge.** Oregon Game Project Challenge (OGPC). <http://www.ogpc.info>
- 2011, 2012 **Judge.** Aspirations in Computing Awards, National and Regional. National Center for Women and Information Technology (NCWIT). <http://ww2.ncwit.org/award/>
- 2010 **Paper Reviewer.** Pacific Coast Philology, the journal of the Pacific Ancient and Modern Language Association.
- 2009 **Paper Reviewer (3 papers).** ACM Transactions on Asian Language Information Processing (TALIP), 8, 4. (December 2009).
- 2009 **Paper Reviewer (4 papers).** Natural Language Processing Track of the International Conference on Informatics and Systems.

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## Professional Experience

- 2002 – 2003 **Consultant.** MitoSystems Inc, Santa Monica, CA  
The Arabic stemmer developed for my M.Sc. degree was licensed to MitoSystems Inc. This required rewriting the stemmer in a different programming language and integrating it into their system. I also served as a consultant for the company while the software was being tested



## Affiliations

**Member**, *Association for Computing Machinery (ACM)*.

**Member**, *ACM Special Interest Group on Computer Science Education (ACM SIGCSE)*.