Curriculum Vitae

JIE LU

12/01/2006

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RESEARCH INTEREST

My general research interests lie in the use and development of information retrieval and machine learning techniques for effective and efficient adaptive information access and mining. I am particularly interested in content management and search in distributed environments such as enterprise networks, peer-to-peer file-sharing networks, and social networks. My other areas of interest include personalized search and domain-dependent (e.g., legal, medical) or task-specific (e.g., retail, travel) information processing and knowledge discovery.

EDUCATION

Ph.D., **Language and Information Technologies**, expected May 2007
Language Technologies Institute, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, USA
Advisor: Jamie Callan
Thesis committee members: Jamie Callan (Chair), Jaime Carbonell, Christos Faloutsos, Norbert Fuhr
Ph.D. Dissertation: Full-text federated search in peer-to-peer networks

Master of Science, **Language Technologies**, May 2004
Language Technologies Institute, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, USA

Master of Science, **Computer Science**, May 2000
Department of Computer Science, Yale University, New Haven, CT, USA

Bachelor of Science and Engineering, **Computer Science**, July 1998
Department of Computer Science and Technology, Tsinghua University, Beijing, China

PUBLICATIONS

Journal Paper

- Jie Lu and Jamie Callan (2006)
  Full-text federated search of text-based digital libraries in peer-to-peer networks.
  Journal of Information Retrieval, Volume 9, Number 4, 2006.

Conference Papers

- Jie Lu and Jamie Callan (submitted)
  Content-based peer-to-peer network overlay for full-text federated search.
  8th RIAO Conference on Large-Scale Semantic Access to Content (RIAO '07).

- Jie Lu and Jamie Callan (2006)
  User modeling for full-text federated search in peer-to-peer networks.
  29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '06).

- Luo Si, Jie Lu and Jamie Callan (2006)
  Combining multiple resources, evidences and criteria for genomic information retrieval.
  15th Text REtrieval Conference (TREC '06).

- Jie Lu and Jamie Callan (2005)
  Federated search of text-based digital libraries in hierarchical peer-to-peer networks.
  27th European Conference on Information Retrieval Research (ECIR '05).

- Jie Lu and Jamie Callan (2004)
  Merging retrieval results in hierarchical peer-to-peer networks.
  27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '04).

- Jie Lu and Jamie Callan (2003)
  Content-based retrieval in hybrid peer-to-peer networks.
  12th ACM International Conference on Information and Knowledge Management (CIKM '03).

- Jie Lu and Jamie Callan (2003)
  Reducing storage costs for federated search of text databases.
  3rd Annual National Conference on Digital Government Research (dg.o '03).

- Luo Si, Jie Lu and Jamie Callan (2003)
  Distributed information retrieval with skewed database size distributions.
  3rd Annual National Conference on Digital Government Research (dg.o '03).

- Jie Lu and Jamie Callan (2002)
  Pruning long documents for distributed information retrieval.
  11th ACM International Conference on Information and Knowledge Management (CIKM '02).

Workshop and Technical Reports

- Jie Lu (2005)
  Full-text federated search in peer-to-peer networks.
  CMU-LTI-05-197, Language Technologies Institute, Carnegie Mellon University.

- Jie Lu and Jamie Callan (2004)
  Federated search of text-based digital libraries in hierarchical peer-to-peer networks.
  Workshop on Peer-to-Peer IR at the 27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '04).

Datasets

- Jie Lu and Jamie Callan (2003, 2006)
  Peer-to-peer testbed definitions.
  http://www.cs.cmu.edu/~callan/Data/

RESEARCH EXPERIENCE

- Research Assistant, Carnegie Mellon University, September 2001 – Present
  Federated search in distributed and peer-to-peer environments using an integrated framework of network overlay, search, and evolution models to provide effective and efficient full-text ranked retrieval with the support of dynamic self-organization in contents and connections.
  Genomic information retrieval combining multiple resources, evidences, and criteria for query expansion, retrieval and result ranking.

- Research Assistant, Yale University, June 1999 – May 2000
  Three-dimensional model construction from two-dimensional images under various illumination conditions.

RECENT PROJECTS

- Research project, Carnegie Mellon University (in collaboration with the University of Duisburg-Essen, Germany), January 2003 – Present
  PEPPER: Peer-to-peer architectures for federated search of complex digital libraries.
  http://www.is.informatik.uni-duisburg.de/projects/pepper/index.html.en

- Research project, Carnegie Mellon University (in collaboration with Purdue University), May 2006 – July 2006
  TREC 2006 Genomics Track (the 3rd ranked group in performance among 30 participating groups).

- Course project, Dynamic Organizations and Networks, Carnegie Mellon University, Fall 2004
  Using regular equivalence to measure similarity for collaborative filtering.

- Course project, Advanced IR Seminar and Lab, Carnegie Mellon University, Fall 2003
  Duplicate detection in large public comment datasets.

TEACHING EXPERIENCE

- Teaching Assistant, Information Retrieval, Carnegie Mellon University, Spring 2006

- Teaching Assistant, Human Language Technologies, Carnegie Mellon University, Fall 2005

- Teaching Assistant, Introduction to Programming, Yale University, Fall 1999

PROFESSIONAL ACTIVITIES

- Program committee member for the Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2007.

- Referee for European Conference on Information Retrieval Research (ECIR), 2007.

- Referee for Human Language Technology Conference (NAACL-HLT), 2007.

- Organizing committee member for the Workshop on Information Retrieval in Peer-to-Peer Networks (P2PIR 2006) at the 15th ACM International Conference on Information and Knowledge Management (CIKM '06), 2006.

- Referee for ACM Transactions on Information Systems (TOIS), 2004 – 2006.

- Referee for Journal of Computer Science and Technology (JCST), 2006.

- Referee for the ACM International Conference on Information and Knowledge Management (CIKM), 2004.

- Invited talk at Baidu.com, Inc., Beijing, P.R.China, April 2005.
  Federated search in distributed and peer-to-peer environments.

- Invited talk at Department of Computer Science and Technology, Tsinghua University, Beijing, P.R.China, March 2005.
  Research at the Language Technologies Institute and the Distributed Information Retrieval Group.

- Invited talk at Department of Informatics and Interactive Systems, University of Duisburg-Essen, Duisburg, Germany, March 2004.
  Federated search of text-based digital libraries in hierarchical peer-to-peer networks.

- Invited talk at NEC Labs China, Beijing, P.R.China, December 2003.
  Content-based retrieval in hybrid peer-to-peer networks.

AWARDS & FELLOWSHIPS

- August 2001 – Present, Research Fellowship, Carnegie Mellon University
- June 1999 – May 2000, Research Scholarship, Yale University
- August 1998 – May 1999, University Fellowship, Yale University
- September 1996 – July 1998, HSBC Scholarship, Tsinghua University
- September 1993 – July 1996, First Class Scholarship for Outstanding Undergraduate, Tsinghua University

PROFICIENCY

- C, C++, Java, Perl, MATLAB
- Windows, UNIX, Linux