

Jiepu Jiang, Ph.D. and Ph.D. candidate

Center for Intelligent Information Retrieval
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Research Interests

- Information retrieval, text mining, web search
- Interactive search systems, user modeling, human-computer interaction

Education

- University of Massachusetts Amherst** 2013 – 2018 (expected)
Ph.D. Candidate in Computer Science, M.S. in Computer Science
Advisor: Prof. James Allan
Dissertation: *Distant Supervision for Information Retrieval*
- University of Pittsburgh** 2009 – 2016
Ph.D. in Library and Information Science
Advisor: Prof. Daqing He
Dissertation: *Ephemeral Relevance and User Activities in a Search Session*
- Wuhan University** 2003 – 2009
M.S. in Information Science, B.S. in Electronic Commerce, B.S. in Computer Science

Publications

Refereed Journal Articles

5. Wei Jeng, **Jiepu Jiang**, and Daqing He.
Users' perceived difficulties and corresponding reformulation strategies in Google voice search.
Journal of Library and Information Studies, 14(1), 2016: 1–14.
4. Wei Jeng, Daqing He, and **Jiepu Jiang**.
User participation in an academic social networking service: a survey of open group users on Mendeley.
[JASIST] *Journal of the Association for Information Science and Technology*, 66(5), 2015: 890–904.
3. Zhen Yue, Shuguang Han, Daqing He, and **Jiepu Jiang**.
Influences on query reformulation in collaborative web search.
Computer, 47(3), 2014: 46–53.
2. Chaoqun Ni, Cassidy R. Sugimoto, and **Jiepu Jiang**.
Venue-author-coupling: a measure for identifying disciplines through author communities.
[JASIST] *Journal of the American Society for Information Science and Technology*, 64(2), 2013: 265–279.

1. Dan Wu, Daqing He, **Jiepu Jiang**, Wuyi Dong, and Kim Thien Vo.
The state of iSchools: an analysis of academic research and graduate education.
Journal of Information Science, 38(1), 2012: 15–36.

Refereed Conference Articles

35. **Jiepu Jiang** and James Allan.
Similarity-based Distant Supervision for Definition Sentence Retrieval.
[CIKM 17] *Proceedings of the 26th ACM International on Conference on Information and Knowledge Management*, 2017.
[full paper, acceptance rate 21%]
34. **Jiepu Jiang** and James Allan.
Adaptive Persistence for Search Effectiveness Measures.
[CIKM 17] *Proceedings of the 26th ACM International on Conference on Information and Knowledge Management*, 2017.
[full paper, acceptance rate 21%]
33. **Jiepu Jiang**, Daqing He, and James Allan.
Comparing in situ and multidimensional relevance judgments.
[SIGIR 17] *The 40th International ACM SIGIR Conference on Research and Development in Information Retrieval*, 2017.
[full paper, acceptance rate 22%]
32. **Jiepu Jiang**, Daqing He, Diane Kelly, and James Allan.
Understanding ephemeral state of relevance.
[CHIIR 17] *The Second ACM SIGIR Conference on Human Information Interaction and Retrieval*, 2017.
[full paper] **Best Student Paper Award**
31. **Jiepu Jiang** and James Allan.
Reducing click and skip errors in search result ranking.
[WSDM 16] *The 9th ACM International Conference on Web Search and Data Mining*, 2016.
[full paper, acceptance rate 18.2%]
30. **Jiepu Jiang** and James Allan.
Adaptive effort for search evaluation metrics.
[ECIR 16] *The 38th European Conference on Information Retrieval*, 2016.
[full paper, acceptance rate 21%]
29. **Jiepu Jiang** and Chaoqun Ni.
What affects word changes in query reformulation during a task-based search session?
[CHIIR 16] *The First ACM SIGIR Conference on Human Information Interaction and Retrieval*, 2016.
[full paper]
28. **Jiepu Jiang** and James Allan.
Correlation between system and user metrics in a session.
[CHIIR 16] *The First ACM SIGIR Conference on Human Information Interaction and Retrieval*, 2016. [short paper]

27. Julia Kiseleva, Kyle Williams, Jiepu Jiang, Ahmed Hassan Awadallah, Aidan C. Crook, Imed Zitouni, and Tasos Anastasakos.
Understanding user satisfaction with intelligent assistants.
[CHIIR 16] *The First ACM SIGIR Conference on Human Information Interaction and Retrieval*, 2016.
[full paper]
26. Shuguang Han, Daqing He, Zhen Yue, and Jiepu Jiang.
Exploring the contextual support for collaborative information retrieval.
[CHIIR 16] *The First ACM SIGIR Conference on Human Information Interaction and Retrieval*, 2016.
[full paper]
25. Chaoqun Ni and Jiepu Jiang.
Visualizing computer science communities using conference hashtags.
[iConference 16] *The 2016 iConference*, 2016. [poster]
24. Jiepu Jiang, Ahmed Hassan Awadallah, Rosie Jones, Umut Ozertem, Imed Zitouni, Ranjitha Gurunath Kulkarni, and Omar Zia Khan.
Automatic online evaluation of intelligent assistants.
[WWW 15] *The 24th International Conference on World Wide Web*, 2015.
[full paper, acceptance rate 14.1%]
23. Jiepu Jiang, Ahmed Hassan Awadallah, Xiaolin Shi, and Ryen W. White.
Understanding and predicting graded search satisfaction.
[WSDM 15] *The Eighth ACM International Conference on Web Search and Data Mining*, 2015.
[full paper, acceptance rate 16.8%]
22. Jiepu Jiang, Daqing He, and James Allan.
Searching, browsing, and clicking in a search session: changes in user behavior by task and over time.
[SIGIR 14] *The 37th ACM SIGIR Conference on Research & Development in Information Retrieval*, 2014.
[full paper, acceptance rate 21%]
21. Jiepu Jiang and James Allan.
Necessary and frequent terms in queries.
[SIGIR 14] *The 37th ACM SIGIR Conference on Research & Development in Information Retrieval*, 2014.
[short paper]
20. Jiepu Jiang, Wei Jeng, and Daqing He.
How do users respond to voice input errors? Lexical and phonetic query reformulation in voice search.
[SIGIR 13] *The 36th ACM SIGIR Conference on Research & Development in Information Retrieval*, 2013.
[full paper, acceptance rate 19.9%]
19. Shuguang Han, Daqing He, Jiepu Jiang, and Zhen Yue.
Supporting exploratory people search: a study of factor transparency and user control.
[CIKM 13] *The 22nd ACM International Conference on Information & Knowledge Management*, 2013.
[full paper, acceptance rate 16.9%]
18. Jiepu Jiang and Daqing He.
Simulating user selections of query suggestions.

The SIGIR '13 workshop on Modeling User Behavior for Information Retrieval Evaluation, 2013.

17. **Jiepu Jiang**, Chaoqun Ni, Daqing He, and Wei Jeng.
Mendeley group as a new source of interdisciplinarity study: how do disciplines interact on mendeley?
[JCDL 13] *The 13th ACM/IEEE-CS Joint Conference on Digital Libraries, 2013.* [short paepr]
16. **Jiepu Jiang**, Daqing He, and Chaoqun Ni.
The correlations between article citation and references' impact measures: what can we learn?
[ASIST 13] *The 76th American Society for Information Science and Technology Annual Meeting, 2013.*
[poster]
15. Wei Jeng and **Jiepu Jiang**.
Users' perceived difficulties and corresponding reformulation strategies in voice search.
[HCIR 13] *The 7th Annual Symposium on Human-Computer Interaction and Information Retrieval, 2013.*
[short paper]
14. Shuguang Han, Zhen Yue, **Jiepu Jiang**, and Wei Jeng.
IRIS-IPS: an interactive people search system.
[HCIR 13] *The 7th Annual Symposium on Human-Computer Interaction and Information Retrieval, 2013.*
[short paper]
13. Shuguang Han, **Jiepu Jiang**, Zhen Yue, and Daqing He.
Recommending program committee candidates for academic conferences.
The CIKM '13 Workshop on Computational Scientometrics: Theory & Applications, 2013. [full paper]
12. **Jiepu Jiang**, Daqing He, Shuguang Han, and Wei Jeng.
Is the article crucial to my research? Evaluating task-oriented importance of academic resources.
[iConference 13] *The 2013 iConference, 2013.* [short paper]
11. **Jiepu Jiang**, Zhen Yue, Shuguang Han, and Daqing He.
Finding readings for scientists from social websites.
[SIGIR 12] *The 35th ACM SIGIR Conference on Research & Development in Information Retrieval, 2012.*
[poster]
10. **Jiepu Jiang**, Daqing He, Shuguang Han, Zhen Yue, and Chaoqun Ni.
Contextual evaluation of query reformulations in a search session by user simulation.
[CIKM 12] *The 21st ACM International Conference on Information and Knowledge Management, 2012.*
[poster]
9. Zhen Yue, **Jiepu Jiang**, Shuguang Han, and Daqing He.
Where do the query terms come from? An analysis of query reformulation in collaborative web search.
[CIKM 12] *The 21st ACM International Conference on Information and Knowledge Management, 2012.*
[poster]
8. Wei Jeng, Daqing He, **Jiepu Jiang**, and Yang Zhang.
Groups in mendeley: owners' descriptions and group outcomes.
[ASIST 12] *The 75th American Society for Information Science and Technology Annual Meeting, 2012.*
[poster]

7. Zhen Yue, Shuguang Han, **Jiepu Jiang**, and Daqing He.
Search tactics as means of examining search processes in collaborative exploratory web search.
The 5th CIKM Ph.D. Workshop on Information and Knowledge, 2012. [full paper]
6. Chaoqun Ni, Cassidy R. Sugimoto, and **Jiepu Jiang**.
Degree, closeness, and betweenness: application of group centrality measurements to explore macro-disciplinary evolution diachronically.
The 13th International Conference of the International Society for Scientometrics & Informetrics, 2011. [full paper]
5. **Jiepu Jiang**, Daqing He, and Chaoqun Ni.
Social reference: aggregating online usage of scientific literature in CiteULike for clustering academic resources.
[JCDL 11] *The 11th Annual International ACM/IEEE Joint Conference on Digital Libraries*, 2011. [poster]
4. Xuefeng Wu, Wei Lu, and **Jiepu Jiang**.
Journal evaluation using the importance of authors in co-authorship network.
[iConference 11] *The 2011 iConference*, 2011. [poster]
3. Dan Wu, Daqing He, **Jiepu Jiang**, Wuyi Dong, and Kim Thien Vo.
Academic research in iSchools: state and implications.
[iConference 11] *The 2011 iConference*, 2011. [full paper]
2. **Jiepu Jiang**, Wei Lu, Xianqian Rong, and Yangye Gao.
Adapting language modeling methods for expert search to rank wikipedia entities.
7th International Workshop of the Initiative for the Evaluation of XML Retrieval, 2008. [full paper]
1. **Jiepu Jiang**, Shuguang Han, and Wei Lu.
Expertise retrieval using search engine results.
The SIGIR '08 workshop on Future Challenges in Expertise Retrieval, 2008. [full paper]

Non-referred Articles

8. **Jiepu Jiang** and James Allan (2014). UMass at TREC 2014 session track. In *Proceedings of the 23rd Text REtrieval Conference (TREC 2014)*.
7. **Jiepu Jiang** and Daqing He (2013). Different effects of click-through and past queries on whole-session search performance. In *Proceedings of the 22nd Text REtrieval Conference (TREC 2013)*.
6. **Jiepu Jiang**, Daqing He, and Shuguang Han (2012). On duplicate results in a search session. In *Proceedings of the 21st Text REtrieval Conference (TREC 2012)*.
5. **Jiepu Jiang**, Shuguang Han, Jia Wu, and Daqing He (2011). PITT at TREC 2011 session track. In *Proceedings of the 20th Text REtrieval Conference (TREC 2011)*.
4. **Jiepu Jiang**, Wei Lu, Xianqian Rong, and Yangye Gao. (2008). CSIR at INEX 2008 entity-ranking task. In *INEX workshop 2008 pre-proceedings (INEX 2008)*.
3. **Jiepu Jiang**, Wei Lu, and Haozhen Zhao. (2008). CSIR at TREC 2008 expert search task: modeling expert evidence in expertise retrieval. In *Proceedings of the 17th Text REtrieval Conference (TREC 2008)*.

2. Wei Lu, Dan Liu, and **Jiepu Jiang** (2007). CSIR at INEX 2007. In *INEX workshop 2007 pre-proceedings (INEX 2007)*.
1. **Jiepu Jiang**, Wei Lu, and Dan Liu. CSIR at TREC 2007 expert search task. In *Proceedings of the 16th Text REtrieval Conference (TREC 2007)*.

Thesis & Dissertation

2. Jiepu Jiang. Ephemeral relevance and user activities in a search session. *Ph.D. dissertation, School of Information Sciences, University of Pittsburgh, 2016.*

Dissertation committee:

- Prof. Daqing He (Dissertation committee chair, University of Pittsburgh)
 - Prof. Peter Brusilovsky (University of Pittsburgh)
 - Prof. Yu-ru Lin (University of Pittsburgh)
 - Prof. Diane Kelly (University of North Carolina at Chapel Hill)
1. Jiepu Jiang. A language modeling approach for entity retrieval. *Master thesis, School of Information Management, Wuhan University, 2009.*

Thesis Advisor: Prof. Wei Lu

Teaching and Supervising

Instructor (University of Massachusetts Amherst)

- CS 646: Information Retrieval (Fall 16)

A graduate-level core course (3 credits) for Computer Science students. I was nominated for the **University Distinguished Teaching Award** by CS646 students.

Teaching Assistant (University of Pittsburgh)

- LIS 2600: Introduction to Information Technology (Fall 09, Spring 10, Fall 10, Fall 11, Spring 12, Fall 12)
- LIS 2635: Information Architecture (Fall 09, Fall 10)
- LIS 2658: Advanced Topics in Information Retrieval (Spring 10, Spring 11)
- LIS 2670: Digital Library (Fall 09, Fall 10, Fall 12)
- LIS 2680: Database Design & Applications (Summer 12)
- LIS 2690: Information Visualization (Spring 11)
- INFSCI 2140: Information Storage and Retrieval (Spring 12, Spring 13)

Supervising Experience

University of Massachusetts Amherst

- (Fall 2016) Supervised a Ph.D. student teaching assistant on designing course materials and grading for CS646.

University of Pittsburgh

- (Summer 2011) Supervised a master student on building a contextual search system. The system participated in the TREC 2011 session track evaluation (organized by NIST) and was ranked the best out of 13 participants. Working paper:
 - Jiepu Jiang, Shuguang Han, Jia Wu, and Daqing He (2011). PITT at TREC 2011 session track. In *Proceedings of the 20th Text REtrieval Conference (TREC 2011)*, 2011.
- (Fall 2010) Supervised an undergraduate student on collecting and analyzing data regarding the status of research collaboration among iSchools. The work was published in the 2011 iConference and Journal of Information Science.
 - Dan Wu, Daqing He, Jiepu Jiang, Wuyi Dong, and Kim Thien Vo. The state of iSchools: an analysis of academic research and graduate education. *Journal of Information Science*, 38(1), 2012: 15–36.
 - Dan Wu, Daqing He, Jiepu Jiang, Wuyi Dong, and Kim Thien Vo. Academic research in iSchools: State and implications. In *Proceedings of the 2011 iConference*, 2011.

Professional Service

I serve as a PC member and review for many conferences & journals in information retrieval, data mining, human-computer interaction, and information science.

Program Committee

- **AIRS** (2016, 2017): Asia Information Retrieval Societies Conference
- **CIKM** (2014, 2015, 2016, 2017): ACM Conference on Information and Knowledge Management
- **ECIR** (2014, 2015, 2016, 2017): European Conference on Information Retrieval
- **IUI** (2015): ACM International Conference on Intelligent User Interfaces
- **KDIR** (2016): International Conference on Knowledge Discovery and Information Retrieval
- **SIGIR** (2015, 2016, 2017): ACM SIGIR Conference on Research and Development in Information Retrieval
- **WSDM** (2016, 2017, 2018): ACM International Conference on Web Search and Data Mining
- **WWW** (2015): International World Wide Web Conference
- **CAIR** (2017): the First International Workshop on Conversational Approaches to Information Retrieval (co-located with SIGIR 2017)

Review

- **CHI** (2014, 2015, 2016, 2017): ACM CHI Conference on Human Factors in Computing Systems
- **CSCW** (2016): ACM conference on Computer-Supported Cooperative Work and Social Computing
- **COLING** (2010): International Conference on Computational Linguistics
- **DIS** (2016): ACM Conference on Designing Interactive Systems
- **IRJ** (2016): Information Retrieval Journal

- **JASIST** (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017): Journal of the Association for Information Science and Technology
- **MobileHCI** (2016): Conference on Human-Computer Interaction with Mobile Devices and Services
- **PLOS One** (2013, 2014)
- **TOIS** (2014, 2017): ACM Transactions on Information Systems
- **WWWJ** (2013, 2014): World Wide Web Journal
- **TPAMI** (2017): IEEE Transactions on Pattern Analysis and Machine Intelligence

Work Experience

- University of Massachusetts Amherst Sep. 2013 – Present
Research Assistant
 Working with Professor James Allan on intelligent interactive search systems.
- University of Massachusetts Amherst Fall 2016
Teaching Associate
 Taught a graduate-level core course *CS646: Information Retrieval* for computer science students.
- Microsoft Research Redmond May 2014 – Aug. 2014
Research Intern
 Worked with Dr. Ahmed Hassan Awadallah and others on online evaluation techniques for web search engines and intelligent voice assistants.
- University of Pittsburgh Sep. 2009 – Aug. 2013
Teaching Assistant
 Worked with Prof. Daqing He, Prof. Sherry Koshman, and Prof. Jung Sun Oh on teaching graduate-level courses in the Master of Library and Information Science (MLIS) program and the Master of Information Science and Technology (MIST) program.
- Wuhan University Sep. 2007 – Jul. 2009
Research Assistant
 Worked with Prof. Wei Lu on enterprise search, people search, and entity search.
- Wuhan International Trade University Sep. 2007 – Jul. 2008
Ajunct Lecturer
 Taught two undergraduate-level courses in a community college: *data structures; information security*.
- Wuhan University Sep. 2005 – Jul. 2007
Part-time Programmer
 Developed some university management information systems.