

Jiepu Jiang

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Research Interests

My research helps people find, understand, and create text information. I apply a unique combination of information retrieval, data/text mining, and HCI methods to study search engines, conversational agents, writing assistants, and other text information systems.

Employment

Aug 2020–Present **Assistant Professor**, Information School, University of Wisconsin-Madison
Aug 2018–Aug 2020 **Assistant Professor**, Computer Science Department, Virginia Tech
May–Aug 2014 **Research Intern**, Microsoft Research Redmond

Education

2013–Present **University of Massachusetts Amherst**
Ph.D. candidate in Computer Science, M.S. in Computer Science (2016)
2009–2016 **University of Pittsburgh**
Ph.D. in Library and Information Science (2016)
2003–2009 **Wuhan University**
M.S. in Information Science (2009), B.S. in Computer Science (2007)

Publications

Refereed Journal Articles

- [J6] Wei Lu, Heng Ding, and Jiepu Jiang. A document expansion framework for tag-based image retrieval. *Aslib Journal of Information Management*, 2018.
- [J5] Wei Jeng, Jiepu Jiang, and Daqing He. (2016). Users' perceived difficulties and corresponding reformulation strategies in Google voice search. *Journal of Library and Information Studies*, 14(1), 25–39.
- [J4] JASIST Wei Jeng, Daqing He, and Jiepu Jiang. (2015). User participation in an academic social networking service: A survey of open group users on Mendeley. *Journal of the Association for Information Science and Technology*, 66(5), 890–904.

- [J3] Zhen Yue, Shuguang Han, Daqing He, and Jiepu Jiang. (2014). Influences on query reformulation in collaborative web search. *Computer*, 47(3), 46–53.
- [J2] JASIST Chaoqun Ni, Cassidy R. Sugimoto, and Jiepu Jiang. (2013). Venue-author-coupling: A measure for identifying disciplines through author communities. *Journal of the American Society for Information Science and Technology*, 64(2), 265–279.
- [J1] JIS Dan Wu, Daqing He, Jiepu Jiang, Wuyi Dong, and Kim Thien Vo. (2012). The state of iSchools: An analysis of academic research and graduate education. *Journal of Information Science*, 38(1), 15–36.

Refereed Conference Papers

* students I advised or mentored

- [C25] WWW '22 Qiurong Song* and Jiepu Jiang. 2022. How Misinformation Density Affects Health Information Search. In *Proceedings of the ACM Web Conference 2022 (WWW '22)*, April 25–29, 2022, Virtual Event, Lyon, France. ACM, New York, NY, USA, 10 pages. (to appear)
- [C24] CIKM '21 Zihan Gao* and Jiepu Jiang. 2021. Evaluating Human-AI Hybrid Conversational Systems with Chatbot Message Suggestions. In *Proceedings of the 30th ACM International Conference on Information and Knowledge Management (CIKM '21)*, November 1–5, 2021, Virtual Event, QLD, Australia. ACM, New York, NY, USA, 11 pages.
- [C23] SIGIR '21 Sheikh Muhammad Sarwar, Felipe Moraes, Jiepu Jiang, James Allan. 2021. Utility of Missing Concepts in Query-biased Summarization. In *Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '21)*, July 11–15, 2021, Virtual Event, Canada. ACM, New York, NY, USA, 5 pages.
- [C22] SIGIR '20 Jiepu Jiang and Naman Ahuja*. (2020). Response quality in human-chatbot collaborative systems. In *Proceedings of the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval*.
- [C21] SIGIR '19 Siyu Mi* and Jiepu Jiang. (2019). Understanding the interpretability of search result summaries. In *Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval*.
- [C20] CIKM '17 Jiepu Jiang and James Allan. (2017). Similarity-based distant supervision for definition sentence retrieval. In *Proceedings of the 26th ACM International on Conference on Information and Knowledge Management*. (Acceptance rate 21%)
- [C19] CIKM '17 Jiepu Jiang and James Allan. (2017). Adaptive persistence for search effectiveness measures. In *Proceedings of the 26th ACM International on Conference on Information and Knowledge Management*. (Acceptance rate 21%)
- [C18] SIGIR '17 Jiepu Jiang, Daqing He, and James Allan. (2017). Comparing in situ and multidimensional relevance judgments. In *Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval*. (Acceptance rate 22%)
- [C17] CHIIR '17 Jiepu Jiang, Daqing He, Diane Kelly, and James Allan. (2017). Understanding ephemeral state of relevance. In *Proceedings of the Second ACM SIGIR Conference on Human Information Interaction and Retrieval*. **(Best student paper award)**



- [C16] WSDM '16 Jiepu Jiang and James Allan. (2016). Reducing click and skip errors in search result ranking. In *Proceedings of the 9th ACM International Conference on Web Search and Data Mining*. (Acceptance rate 18.2%)
- [C15] ECIR '16 Jiepu Jiang and James Allan. (2016). Adaptive effort for search evaluation metrics. In *Proceedings of the 38th European Conference on Information Retrieval*. (Acceptance rate 21%)
- [C14] CHIIR '16 Jiepu Jiang and Chaoqun Ni. (2016). What affects word changes in query reformulation during a task-based search session? In *Proceedings of the First ACM SIGIR Conference on Human Information Interaction and Retrieval*.
- [C13] CHIIR '16 (short paper) Jiepu Jiang and James Allan. (2016). Correlation between system and user metrics in a session. In *Proceedings of the First ACM SIGIR Conference on Human Information Interaction and Retrieval*.
- [C12] CHIIR '16 Julia Kiseleva, Kyle Williams, Jiepu Jiang, Ahmed Hassan Awadallah, Aidan C. Crook, Imed Zitouni, and Tasos Anastasakos. (2016). Understanding user satisfaction with intelligent assistants. In *Proceedings of the First ACM SIGIR Conference on Human Information Interaction and Retrieval*.
- [C11] CHIIR '16 Shuguang Han, Daqing He, Zhen Yue, and Jiepu Jiang. (2016). Exploring the contextual support for collaborative information retrieval. In *Proceedings of the First ACM SIGIR Conference on Human Information Interaction and Retrieval*.
- [C10] WWW '15 Jiepu Jiang, Ahmed Hassan Awadallah, Rosie Jones, Umut Ozertem, Imed Zitouni, Ranjitha Gurunath Kulkarni, and Omar Zia Khan. (2015). Automatic online evaluation of intelligent assistants. In *Proceedings of the 24th International Conference on World Wide Web*. (Acceptance rate 14.1%)
- [C9] WSDM '15 Jiepu Jiang, Ahmed Hassan Awadallah, Xiaolin Shi, and Ryen W. White. (2015). Understanding and predicting graded search satisfaction. In *Proceedings of the Eighth ACM International Conference on Web Search and Data Mining*. (Acceptance rate 16.8%)
- [C8] SIGIR '14 Jiepu Jiang, Daqing He, and James Allan. (2014). Searching, browsing, and clicking in a search session: Changes in user behavior by task and over time. In *Proceedings of the 37th ACM SIGIR Conference on Research & Development in Information Retrieval*. (Acceptance rate 21%)
- [C7] SIGIR '14 (short paper) Jiepu Jiang and James Allan. (2014). Necessary and frequent terms in queries. In *Proceedings of the 37th ACM SIGIR Conference on Research & Development in Information Retrieval*.
- [C6] CIKM '13 Shuguang Han, Daqing He, Jiepu Jiang, and Zhen Yue. (2013). Supporting exploratory people search: a study of factor transparency and user control. In *Proceedings of the 22nd ACM International Conference on Information & Knowledge Management*. (Acceptance rate 16.9%)
- [C5] HCIR '13 (short paper) Wei Jeng and Jiepu Jiang. (2013). Users' perceived difficulties and corresponding reformulation strategies in voice search. In *Proceedings of the 7th Annual Symposium on Human-Computer Interaction and Information Retrieval*.
- [C4] SIGIR '13 Jiepu Jiang, Wei Jeng, and Daqing He. (2013). How do users respond to voice input errors? Lexical and phonetic query reformulation in voice search. In *Proceedings of the 36th ACM SIGIR Conference on Research & Development in Information Retrieval*. (Acceptance rate 19.9%)

- [C3] JCDL '13 (short paper) Jiepu Jiang, Chaoqun Ni, Daqing He, and Wei Jeng. Mendeley group as a new source of interdisciplinarity study: How do disciplines interact on Mendeley? In *Proceedings of the 13th ACM/IEEE-CS Joint Conference on Digital Libraries*.
- [C2] ISSI 2011 Chaoqun Ni, Cassidy R. Sugimoto, and Jiepu Jiang. (2011). Degree, closeness, and betweenness: Application of group centrality measurements to explore macro-disciplinary evolution diachronically. In *Proceedings of the 13th International Conference of the International Society for Scientometrics & Informetrics*.
- [C1] iConference '11 Dan Wu, Daqing He, Jiepu Jiang, Wuyi Dong, and Kim Thien Vo. (2011). Academic research in iSchools: State and implications. In *Proceedings of the 2011 iConference*.

Refereed Conference Posters

- [P9] iConference '16 Chaoqun Ni and Jiepu Jiang. (2016). Visualizing computer science communities using conference hashtags. In *Proceedings of the 2016 iConference*.
- [P8] ASIST '13 Jiepu Jiang, Daqing He, and Chaoqun Ni. (2013). The correlations between article citation and references' impact measures: What can we learn? In *Proceedings of the 76th American Society for Information Science and Technology Annual Meeting*.
- [P7] HCIR '13 Shuguang Han, Zhen Yue, Jiepu Jiang, and Wei Jeng. (2013). IRIS-IPS: an interactive people search system. In *Proceedings of the 7th Annual Symposium on Human-Computer Interaction and Information Retrieval*.
- [P6] CIKM '12 Jiepu Jiang, Daqing He, Shuguang Han, Zhen Yue, and Chaoqun Ni. (2012). Contextual evaluation of query reformulations in a search session by user simulation. In *Proceedings of the 21st ACM International Conference on Information and Knowledge Management*.
- [P5] CIKM '12 Zhen Yue, Jiepu Jiang, Shuguang Han, and Daqing He. (2012). Where do the query terms come from? An analysis of query reformulation in collaborative web search. In *Proceedings of the 21st ACM International Conference on Information and Knowledge Management*.
- [P4] SIGIR '12 Jiepu Jiang, Zhen Yue, Shuguang Han, and Daqing He. (2012). Finding readings for scientists from social websites. In *Proceedings of the 35th ACM SIGIR Conference on Research & Development in Information Retrieval*.
- [P3] ASIST '12 Wei Jeng, Daqing He, Jiepu Jiang, and Yang Zhang. Groups in Mendeley: Owners' descriptions and group outcomes. In *Proceedings of the 75th American Society for Information Science and Technology Annual Meeting*.
- [P2] JCDL '11 Jiepu Jiang, Daqing He, and Chaoqun Ni. (2011). Social reference: Aggregating online usage of scientific literature in CiteULike for clustering academic resources. In *Proceedings of the 11th Annual International ACM/IEEE Joint Conference on Digital Libraries*.
- [P1] iConference '11 Xuefeng Wu, Wei Lu, and Jiepu Jiang. (2011). Journal evaluation using the importance of authors in co-authorship network. In *Proceedings of the 2011 iConference*.

Refereed Workshop Papers

- [W6] SIGIR '13 workshop Jiepu Jiang and Daqing He. (2013). Simulating user selections of query suggestions. In *SIGIR '13 Workshop on Modeling User Behavior for Information Retrieval Evaluation*.

- [W5] CIKM '13 workshop Shuguang Han, Jiepu Jiang, Zhen Yue, and Daqing He. (2013). Recommending program committee candidates for academic conferences. In *CIKM '13 Workshop on Computational Scientometrics: Theory & Applications*.
- [W4] CIKM '12 workshop Zhen Yue, Shuguang Han, Jiepu Jiang, and Daqing He. (2012). Search tactics as means of examining search processes in collaborative exploratory web search. In *the 5th CIKM Ph.D. Workshop on Information and Knowledge*.
- [W3] ASIST '12 workshop Jiepu Jiang and Daqing He. (2012). Social reference and altmetrics: Merely fads? In *METRICS 2012: Workshop on Informetric and Scientometric Research*.
- [W2] INEX '08 Jiepu Jiang, Wei Lu, Xianqian Rong, and Yangye Gao. (2009). Adapting language modeling methods for expert search to rank Wikipedia entities. In *the 7th International Workshop of the Initiative for the Evaluation of XML Retrieval*.
- [W1] SIGIR '08 workshop Jiepu Jiang, Shuguang Han, and Wei Lu. (2008). Expertise retrieval using search engine results. In *SIGIR '08 workshop on Future Challenges in Expertise Retrieval*.

Non-refereed Articles

- [N6] TREC 2014 Jiepu Jiang and James Allan. (2014). UMass at TREC 2014 session track. In *Proceedings of the 23rd Text REtrieval Conference*.
- [N5] TREC 2013 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*.
- [N4] TREC 2012 Jiepu Jiang, Daqing He, and Shuguang Han. (2012). On duplicate results in a search session. In *Proceedings of the 21st Text REtrieval Conference*.
- [N3] TREC 2011 Jiepu Jiang, Shuguang Han, Jia Wu, and Daqing He. (2011). PITT at TREC 2011 session track. In *Proceedings of the 20th Text REtrieval Conference*.
- [N2] TREC 2008 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*.
- [N1] TREC 2007 Jiepu Jiang, Wei Lu, and Dan Liu. (2007). CSIR at TREC 2007 expert search task. In *Proceedings of the 16th Text REtrieval Conference*.

Teaching

UW-Madison

- LIS 351: Intro to Digital Information
- LIS 501: Introduction to Text Mining
- LIS 875: Tech Foundations of Information Sciences
- LIS 975: Seminar on AI Fairness and Explainability

Virginia Tech

- CS 3654: Intro to Data Analytics & Visualization
- CS 5604: Information Storage and Retrieval

Professional Services

Senior Program Committee & Meta Reviewer

- JCDL (2020–2021): ACM/IEEE Joint Conference on Digital Libraries
- WWW (2020–2022): International World Wide Web Conference (The Web Conference)

Program Committee (PC)

- AIRS (2016–2017): Asia Information Retrieval Societies Conference
- AAAI (2021–2022): AAAI Conference on Artificial Intelligence
- CIKM (2014–2020): ACM Conference on Information and Knowledge Management
- ECIR (2014–2022): European Conference on Information Retrieval
- IUI (2015–2021): ACM International Conference on Intelligent User Interfaces
- KDD (2022): ACM SIGKDD Conference on Knowledge Discovery and Data Mining
- SIGIR (2015–2022): ACM Conference on Research and Development in Information Retrieval
- WSDM (2016–2022): ACM International Conference and Web Search and Data Mining
- WWW (2015, 2018): International World Wide Web Conference (The Web Conference)
- CAIR (2017, 2018, 2020): International Workshop on Conversational Approaches to Information Retrieval
- Legal-AI (2018, 2019, 2020): Annual Workshop on Applications of Artificial Intelligence in the Legal Industry
- Learn-IR (2018): WSDM 2018 Workshop on Learning from User Interactions

Conference Reviewer

- CHI (2014, 2015, 2016, 2017, 2022): ACM CHI Conference on Human Factors in Computing Systems
- COLING (2010): International Conference on Computational Linguistics
- CSCW (2016, 2018): ACM Conference on Computer-supported Cooperative Work and Social Computing
- DIS (2016): ACM Conference on Designing Interactive Systems
- MobileHCI (2016): Conference on Human-Computer Interaction with Mobile Devices and Services

Journal Editorial Board

- Aslib Journal of Information Management (2021–Present)

Journal Reviewer

- ACM Transactions on Applied Perception (2020)
- ACM Transactions on Information Systems (2014, 2017, 2019, 2020, 2021)
- ACM Transactions on Social Computing (2019, 2020)
- Aslib Journal of Information Management (2021, 2022)
- Data and Information Management (2019)
- IEEE Computational Intelligence Magazine (2020)
- IEEE Transactions on Audio, Speech and Language Processing (2019)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (2017)
- Information Processing & Management (2017, 2021, 2022)
- Information Retrieval Journal (2016)
- Journal of Information Science (2018, 2020)
- Journal of the Association for Information Science and Technology (2009–2021)
- PLOS One (2013, 2014)
- World Wide Web Journal (2013, 2014)