Hongning Wang

CONTACT INFORMATION

Rice Hall, Room 408
Department of Computer Science
University of Virginia
Charlottesville, VA 22904-4740

WWW: www.cs.virginia.edu/~hw5x/
E-mail: hw5x@virginia.edu
Phone: (434)982-2228

RESEARCH AREAS

Information Retrieval, Data Mining, Machine Learning, and their applications in interactive decision making.

EMPLOYMENT

University of Virginia, Charlottesville, Virginia, U.S.

Department of Computer Science

- Associate Professor, August 2020 - present
- Assistant Professor, August 2014 - July 2020

EDUCATION

University of Illinois at Urbana-Champaign, Urbana, Illinois, U.S.

Ph.D., Department of Computer Science

- Advisor: ChengXiang Zhai
- Area of Research: Information Retrieval, Text Mining and Machine Learning
- Thesis: "Computational User Intent Modeling"
- Graduation Date: August, 2014

Tsinghua University, Beijing, China

M.E., Department of Computer Science and Technology, June 2009

- Advisor: Xiaoyan Zhu
- Thesis: "Generative Topic Models for Document Modeling"

B.E., Department of Computer Science and Technology, July 2007

- Thesis: "Feature Selection and Integration for Biological Literature Classification"

HONORS & AWARDS

Google Faculty Research Award, 2020

- "*Personalized and Private Online Learning to Rank*".

Microsoft Research Faculty Fellowship Finalist, 2020

- One of the ten finalists, selected from all qualified junior faculties in the area of computer science in the United States.

SIGIR'2019 Best Paper Award, 2019

- Huazheng Wang, Sonwoo Kim, Eric McCord-Snook, Qingyun Wu and Hongning Wang, "*Variance Reduction in Gradient Exploration for Online Learning to Rank*".

WSDM'2019 Outstanding Senior Program Committee Award, 2019

- Selected among all Senior PC members in the International Conference on Web Search and Data Mining 2019.

SIGIR'2017 Outstanding Reviewer Award, 2017

- Selected among all PC members in the International ACM SIGIR Conference on Research and Development in Information Retrieval 2017.

Yelp Dataset Challenge Award, 2020 and 2017
- Selected among all research teams participating in this challenge.

NSF Faculty Early Career Development Program (CAREER) Award, 2016
- "Human-Centric Knowledge Discovery and Decision Optimization"
- IIS-1553568

Best paper nomination in BuildSys'15, 2015
- 1 of 3 nominated papers for the best paper award

WSDM'2015 Outstanding Reviewer Award, 2015
- Selected among all pc members in the conference of International Conference on Web Search and Data Mining 2105.

Yahoo Academic Career Enhancement Award, 2014
- 1 of 5 awarded among all junior faculties nominated worldwide

UVA Excellence in Diversity Fellowship, 2014
- Selected among all junior faculties in the University of Virginia

Google Ph.D. Fellowship, 2012
- 1 of 14 awarded in the United States/Canada

Yahoo! Key Scientific Challenge Award, 2012
- 1 of 30 awarded in the United States

Yahoo!-DAIS Research Excellence Award, University of Illinois
- Golden Award, 2014
- Bronze Award, 2013
- Bronze Award, 2011

Publications

Journal publications

1. **Hongning Wang**, Rui Li, Milad Shokouhi, Hang Li and Yi Chang. *Search, Mining, and Their Applications on Mobile Devices: Introduction to the Special Issue.* ACM Transactions on Information Systems (TOIS), special issue, 2017. (Impact Factor: 2.312)

2. Shengwen Peng, Ronghui You, **Hongning Wang**, Chengxiang Zhai, Hiroshi Mamitsuka and Shanfeng Zhu. *DeepMeSH: Deep Semantic Representation for Improving Large-scale MeSH Indexing.* Bioinformatics (2016) 32 (12): i70-i79. doi: 10.1093/bioinformatics/btw294, June 2016. (Impact Factor: 5.481)

3. Peilin Yang, **Hongning Wang**, Hui Fang and Deng Cai. *Opinions matter: a general approach to user profile modeling for contextual suggestion.* Information Retrieval Journal, pp 1-25, DOI 10.1007/s10791-015-9278-7, November 2015. (Impact Factor: 1.488)

4. **Hongning Wang**, Minlie Huang and Xiaoyan Zhu. *Extract Interaction Detection Methods from the Biological Literature.* BMC Bioinformatics 2009, 10(Suppl 1):S55, January 2009. (Impact Factor: 2.213)

5. **Hongning Wang**, Minlie Huang, Shilin Ding and Xiaoyan Zhu. *Exploiting and Integrating Rich Features for Biological Literature Classification.* BMC Bioinformatics 2008, 9(Suppl 3):S4, April 2008. (Impact Factor: 2.213)

6. Minlie Huang, Shilin Ding, **Hongning Wang** and Xiaoyan Zhu. *Mining Physical Protein-protein Interactions from Literature*. Genome Biology 2008, 9(Suppl 2):S12, September, 2008. (Impact Factor: 13.2)

Conference publications

1. Chuanhao Li [1], Qingyun Wu and **Hongning Wang**. *Unifying Clustered and Non-stationary Bandits*. The 24th International Conference on Artificial Intelligence and Statistics (AISTATS'2021), April 2021. (Acceptance rate: 29.8%)

2. Yiling Jia, Huazheng Wang, Stephen Guo, and **Hongning Wang**. *PairRank: Online Pairwise Learning to Rank by Divide-and-Conquer*. The Web Conference 2021 (WWW'2021), April 2021. (Acceptance rate: 20.6%)

3. Aobo Yang, Nan Wang, Hongbo Deng and **Hongning Wang**. *Explanation as a Defense of Recommendation*. The 14th ACM International WSDM Conference (WSDM'2021), March 2021. (Acceptance rate: 18.6%)

4. Nan Wang , Zhen Qin, Xuanhui Wang and **Hongning Wang**. *Non-Clicks Mean Irrelevant? Propensity Ratio Scoring As a Correction*. The 14th ACM International WSDM Conference (WSDM'2021), March 2021. (Acceptance rate: 18.6%)

5. Zhendong Chu, Jing Ma and **Hongning Wang**. *Learning from Crowds by Modeling Common Confusions*. The 35th AAAI Conference on Artificial Intelligence (AAAI-21), February 2021. (Acceptance rate: 21%)

6. Huazheng Wang, Qingyun Wu, Abhinav Khaitan, Shubham Chopra, Qian Zhao and **Hongning Wang**. *Global and Local Differential Privacy for Collaborative Bandits*. The 14th ACM Conference on Recommender Systems (RecSys'2020), p150–159, September 2020. (Acceptance rate: 17.8%)

7. Lu Lin and **Hongning Wang**. *Graph Attention Networks over Edge Content-Based Channels*. The 26th ACM SIGKDD Conference On Knowledge Discovery And Data Mining (KDD 2020), p1819–1827, August 2020. (Acceptance rate: 16.8%)

8. Nan Wang and **Hongning Wang**. *Directional Multivariate Ranking*. The 26th ACM SIGKDD Conference On Knowledge Discovery And Data Mining (KDD 2020), p1819–1827, August 2020. (Acceptance rate: 16.8%)

9. Qingyun Wu, Huazheng Wang and **Hongning Wang**. *Learning by Exploration: New Challenges in Real-World Environments*. The 26th ACM SIGKDD Conference On Knowledge Discovery And Data Mining (KDD 2020), p3575–3576, August 2020. (Tutorial)

10. Jibang Wu, Renqin Cai and **Hongning Wang**. *Déjà vu: The Contextualized Temporal Attention Mechanism for Sequential Recommendation*. The Web Conference 2020 (WWW 2020), p2199-2209, April 2020. (Acceptance rate: 19.2%)

11. Jing Ma, Dezhi Hong and **Hongning Wang**. *Selective Sampling for Building Sensor Type Classification*. 19th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN 2020), p241-252, April 2020. (Acceptance rate: 21.7%)

[1] The student coauthors advised by me is underlined, and my name is in bold

12. Shuheng Li, Dezhi Hong and **Hongning Wang**. *Relation Inference among Sensor Time Series in Smart Buildings with Metric Learning.* The Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020), p4683-4690, February 2020. (Acceptance rate: 20.6%)

13. Lin Gong, Lu Lin, Mike Song and **Hongning Wang**. *JNET: Learning User Representations via Joint Network Embedding and Topic Embedding.* 13th ACM International Web Search and Data Mining Conference (WSDM'2020), p205–213, February 2020. (Acceptance rate: 15%)

14. Xueying Bai, Jian Guan and **Hongning Wang**. *A Model Based Reinforcement Learning Method with Adversarial Training for Online Recommendation.* Thirty-third Conference on Neural Information Processing Systems (NeurIPS'2019), p10734-10745, December 2019. (Acceptance rate: 21.2%)

15. Huazheng Wang, Zhe Gan, Xiaodong Liu, Jingjing Liu, Jianfeng Gao and **Hongning Wang**. *Adversarial Domain Adaptation for Machine Reading Comprehension.* 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP'2019), p2510–2520, November 2019. (Acceptance rate: 23.8%)

16. Yiling Jia, Nipun Batra, Kamin Whitehouse and **Hongning Wang**. *Active Collaborative Sensing for Energy Breakdown.* The 28th ACM International Conference on Information and Knowledge Management (CIKM'2019), p1943–1952, November 2019. (Acceptance rate: 19.4%)

17. Zhendong Chu, Renqin Cai and **Hongning Wang**. *Account for Temporal Dynamics in Modeling Document Streams.* The 28th ACM International Conference on Information and Knowledge Management (CIKM'2019), p1813–1822, November 2019. (Acceptance rate: 19.4%)

18. Dezhi Hong, Renqin Cai, **Hongning Wang** and Kamin Whitehouse. *Learning from Correlated Events for Equipment Relation Inference in Buildings.* The 6th ACM International Conference on Systems for Energy-Efficient Built Environments, Cities, and Transportation (BuildSys'2019), p203–212, November 2019. (Acceptance rate: 29.7%)

19. Lu Lin, Zheng Luo, Dezhi Hong and **Hongning Wang**. *Sequential Learning with Active Partial Labeling for Metadata in Buildings.* The 6th ACM International Conference on Systems for Energy-Efficient Built Environments, Cities, and Transportation (BuildSys'2019), p189–192, November 2019. (Short paper, Acceptance rate: 29.7%)

20. Qingyun Wu, Zhige Li, Huazheng Wang, Wei Chen and **Hongning Wang**. *Factorization Bandits for Online Influence Maximization.* The 25th ACM SIGKDD Conference On Knowledge Discovery And Data Mining (KDD'2019), p636-646, August 2019. (Acceptance rate: 9.2%)

21. Yiyi Tao, Yiling Jia, Nan Wang and **Hongning Wang**. *The FacT: Taming Latent Factor Models for Explainability with Factorization Trees.* The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2019), p295-304, July 2019. (Acceptance rate: 20%)

22. Huazheng Wang, Sonwoo Kim, Eric McCord-Snook, Qingyun Wu and **Hongning Wang**. *Variance Reduction in Gradient Exploration for Online Learning to Rank.* The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2019), p835-844, July 2019. (***Best Paper Award***, Acceptance rate: 20%)

23. Wasi Uddin Ahmad, Kai-Wei Chang and **Hongning Wang**. *Context Attentive Document Ranking and Query Suggestion.* The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2019), p385-394, July 2019. (Acceptance rate: 20%)

24. Qingyun Wu, Huazheng Wang, Yanen Li and **Hongning Wang**. *Dynamic Ensemble of Contextual Bandits to Satisfy Users' Changing Interests.* The Web Conference 2019 (WWW'2019), p2080-2090, May 2019. (Acceptance rate: 18%)

25. Yiling Jia, Nipun Batra, Kamin Whitehouse and **Hongning Wang**. *A Tree-Structured Neural Network Model for Household Energy Breakdown.* The Web Conference 2019 (WWW'2019), p2872-2878, May 2019. (Acceptance rate: 20%)

26. Lu Lin, Lin Gong and **Hongning Wang**. *Learning Personalized Topical Compositions with Item Response Theory.* The 12th ACM International Conference on Web Search and Data Mining (WSDM'2019), p609-617, February 2019. (Acceptance rate: 16%)

27. Qi Yi, Qingyun Wu, **Hongning Wang**, Jie Tang and Maosong Sun. *Bandit Learning with Implicit Feedback.* The Thirty-second Conference on Neural Information Processing Systems (NeurIPS'2018), p7287-7297, December 2018. (Acceptance rate: 20.8%)

28. Jason Koh, Dezhi Hong, Rajesh Gupta, Kamin Whitehouse, Yuvraj Agarwal and **Hongning Wang**. *Plaster: An Integration, Benchmark and Development Framework for Heterogeneous Metadata Normalization Methods.* The 5th ACM International Conference on Systems for Built Environments (BuildSys'2018), p1-10, November 2018. (Acceptance rate: 20.8%)

29. Renqin Cai, Xueying Bai, Yuling Shi, Zhenrui Wang, Parikshit Sondhi and **Hongning Wang**. *Modeling Sequential Online Interactive Behaviors with Temporal Point Process.* The 27th International Conference on Information and Knowledge Management (CIKM'2018), p873-882, October 2018. (Acceptance rate: 17%)

30. Lin Gong and **Hongning Wang**. *When Sentiment Analysis Meets Social Network: A Holistic User Behavior Modeling in Opinionated Data.* The 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'2018), research track, p1455-1464, August 2018. (Acceptance rate: 18.4%)

31. Elaheh Sadredini, Deyuan Guo, Chunkun Bo, Reza Rahimi, Kevin Skadron and **Hongning Wang**. *A Scalable Solution for Rule-Based Part-of-Speech Tagging on Novel Hardware Accelerators.* The 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'2018), applied data science track, p665-674, 2018. (Acceptance rate: 22.5%)

32. Nan Wang, Yiling Jia, Yue Yin and **Hongning Wang**. *Explainable Recommendation via Multi-Task Learning in Opinionated Text Data.* The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2018), p165-174, July 2018. (Acceptance rate: 21%)

33. Wasi Uddin Ahmad, Kai-Wei Chang and **Hongning Wang**. *Intent-aware Query Obfuscation for Privacy Protection in Personalized Web Search.* The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2018), p285-294, July 2018. (Acceptance rate: 21%)

34. Qingyun Wu, Naveen Iyer and **Hongning Wang**. *Learning Contextual Bandits in a Non-stationary Environment.* The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2018), p495-504, July 2018. (Acceptance rate: 21%)

35. Huazheng Wang, Ramsey Langley, Sonwoo Kim, Eric McCord-Snook and **Hongning Wang**. *Efficient Exploration of Gradient Space for Online Learning to Rank.* The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2018), p145-154, July 2018. (Acceptance rate: 21%)

36. Puxuan Yu, Wasi Uddin Ahmad and **Hongning Wang**. *Hide-n-Seek: An Intent-aware Privacy Protection Plugin for Personalized Web Search.* The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2018), p1333-1336, July 2018. (Acceptance rate: 50%)

37. Wasi Uddin Ahmad, Kai-Wei Chang and **Hongning Wang**. *Multi-Task Learning for Document Ranking and Query Suggestion.* Sixth International Conference on Learning Representations (ICLR'2018), full paper, April 2018. (Acceptance rate: 36%)

38. Nipun Batra, Yiling Jia, **Hongning Wang** and Kamin Whitehouse. *Transferring Decomposed Tensors for Scalable Energy Breakdown across Regions.* The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI'2018), p740-747, April 2018. (Acceptance rate: 25%)

39. Qingyun Wu, **Hongning Wang**, Liangjie Hong and Yue Shi. *Returning is Believing: Optimizing Long-term User Engagement in Recommender Systems.* The 26th International Conference on Information and Knowledge Management (CIKM'2017), p1927-1936, November 2017. (Acceptance rate: 21%)

40. Yuling Shi, Zhiyong Peng and **Hongning Wang**. *Modeling Student Learning Styles in MOOCs.* The 26th International Conference on Information and Knowledge Management (CIKM'2017), p979-988, November 2017. (Acceptance rate: 21%)

41. Renqin Cai, Chi Wang and **Hongning Wang**. *Accounting for Correspondence in Commented Data.* The 40th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2017), p365-374, August 2017. (Acceptance rate: 22%)

42. Huazheng Wang, Qingyun Wu and **Hongning Wang**. *Factorization bandits for interactive recommendation.* The 31st AAAI Conference on Artificial Intelligence (AAAI'2017), p2695-2702, February 2017. (Acceptance rate:24.6%)

43. Nipun Batra, **Hongning Wang**, Amarjeet Singh, and Kamin Whitehouse. *Matrix factorisation for scalable energy breakdown.* The 31st AAAI Conference on Artificial Intelligence (AAAI'2017), p4467-4473, February 2017. (Acceptance rate:24.6%)

44. Derek Wu and **Hongning Wang**. *ReviewMiner: An Aspect-based Review Analytics System.* The 40th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2017), demo paper, p1285-1288, August 2017. (Acceptance rate: 47%)

45. Asif Salekin, **Hongning Wang**, Kristine Williams and John Stankovic. *DAVE: Detecting Agitated Vocal Events.* the IEEE 2nd International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE'2017), p157-166, July 2017. (Acceptance rate: 67%)

46. Lin Gong, Benjamin Haines and **Hongning Wang**. *Clustered Model Adaptation for Personalized Sentiment Analysis.* The 26th International World Wide Web Conference (WWW'2017), p937-946, April 2017. (Acceptance rate: 17%)

47. Sarah Masud Preum, Abu Sayeed Mondol, Meiyi Ma, **Hongning Wang** and John A. Stankovic. *Preclude: Conflict Detection in Textual Health Advice.* The 15th IEEE International Conference on Pervasive Computing and Communications (PerCom'2017), p286-296, March 2017. (Acceptance rate: 16.5%)

48. Huazheng Wang, Qingyun Wu and **Hongning Wang**. *Learning Hidden Features for Contextual Bandits.* The 25th ACM International Conference on Information and Knowledge Management (CIKM'2016), p1633-1642, October 2016. (Acceptance rate:17.6%)

49. Lin Gong, Mohammad Al Boni and **Hongning Wang**. *Modeling Social Norms Evolution for Personalized Sentiment Classification.* The 54th Annual Meeting of the Association for Computational Linguistics (ACL'2016), p855-865, August 2016. (Acceptance rate:25%)

50. Qingyun Wu, Huazheng Wang, Quanquan Gu and **Hongning Wang**. *Contextual Bandits in A Collaborative Environment.* The 39th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2016), p529-538, July 2016. (Acceptance rate:18%)

51. Wasi Ahmad, Md Masudur Rahman and **Hongning Wang**. *Topic Model based Privacy Protection in Personalized Web Search.* The 39th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'2016), p1025-1028, July 2016. (Acceptance rate:30.7%)

52. Md Mustafizur Rahman and **Hongning Wang**. *Hidden Topic Sentiment Model.* The 25th International World-Wide Web Conference (WWW'2016), p155-165, April 2016. (Acceptance rate:16%)

53. Asif Salekin, **Hongning Wang** and John Stankovic. *KinVocal: Detecting Agitated Vocal Events.* The 13th ACM Conference on Embedded Networked Sensor Systems (SenSys'2015), demo paper, p459-460, November 2015. (Acceptance rate:20%)

54. Dezhi Hong, **Hongning Wang**, Jorge Ortiz and Kamin Whitehouse. *The Building Adapter: Towards Quickly Applying Building Analytics at Scale.* The ACM International Conference on Systems for Built Environments (BuildSys'2015), p123-132, November 2015. Best Paper Candidate. (Acceptance rate:29%)

55. Dezhi Hong, **Hongning Wang** and Kamin Whitehouse. *Clustering-based Active Learning on Sensor Type Classification in Buildings.* The 24th ACM International Conference on Information and Knowledge Management (CIKM'2015), p363-372, October 2015. (Acceptance rate:18%)

56. Mohammad Al Boni, Keira Qi Zhou, **Hongning Wang** and Matthew S. Gerber. *Model Adaptation for Personalized Opinion Analysis.* The 53th Annual Meeting of the Association for Computational Linguistics (ACL'2015), July 2015. (Acceptance rate:22%)

57. **Hongning Wang**, Yang Song, Ming-Wei Chang, Xiaodong He, Ahmed Hassan and Ryen White. *Modeling Action-level Satisfaction for Search Task Satisfaction Prediction.* The 37th Annual ACM SIGIR Conference (SIGIR'2014), p123-132, July 2014. (Acceptance rate:21%)

58. Yanen Li, Anlei Dong, **Hongning Wang**, Hongbo Deng, Yi Chang and ChengXiang Zhai. *A Two-dimensional Click Model for Query Auto-completion.* The 37th Annual ACM SIGIR Conference (SIGIR'2014), p455-464, July 2014. (Acceptance rate:21%)

59. **Hongning Wang**, ChengXiang Zhai, Feng Liang, Anlei Dong and Yi Chang. *User Modeling in Search Logs via A Nonparametric Bayesian Approach.* The 7th ACM Web Search and Data Mining Conference (WSDM'2014), p203-212, February 2014. (Acceptance rate:18%)

60. Yang Song, **Hongning Wang** and Xiaodong He. *Adapting Deep RankNet for Personalized Search.* The 7th ACM Web Search and Data Mining Conference (WSDM'2014), p83-92, February 2014. (Acceptance rate:18%)

61. **Hongning Wang**, Xiaodong He, Ming-Wei Chang, Yang Song, Ryen White and Wei Chu. *Personalized Ranking Model Adaptation for Web Search.* The 36th Annual ACM SIGIR Conference (SIGIR'2013), p323-332, July 2013. (Acceptance rate:20%)

62. **Hongning Wang**, ChengXiang Zhai, Anlei Dong and Yi Chang. *Content-Aware Click Modeling.* The 23rd International World-Wide Web Conference (WWW'2013), p1365-1376, May 2013. (Acceptance rate:15%)

63. **Hongning Wang**, Yang Song, Ming-Wei Chang, Xiaodong He, Ryen White and Wei Chu. *Learning to Extract Cross-Session Search Tasks.* The 23rd International World-Wide Web Conference (WWW'2013), p1353-1364, May 2013. (Acceptance rate:15%)

64. Yang Song, Hao Ma, **Hongning Wang** and Kuansan Wang. *Exploring and Exploiting User Search Behaviors on Mobile and Tablet Devices to Improve Search Relevance.* The 23rd International World-Wide Web Conference (WWW'2013), p1201-1212, May 2013. (Acceptance rate:15%)

65. Ryen White, Wei Chu, Ahmed Hassan, Xiaodong He, Yang Song and **Hongning Wang**. *Enhancing Personalized Search by Mining and Modeling Task Behavior.* The 23rd International World-Wide Web Conference (WWW'2013), p1411-1420, May 2013. (Acceptance rate:15%)

66. Chi Wang, **Hongning Wang**, Jialu Liu, Ming Ji, Lu Su, Yuguo Chen and Jiawei Han. *On the Detectability of Node Grouping in Networks.* SIAM International Conference on Data Mining (SDM'2013), p713-721, May 2013. (Acceptance rate:25.5%)

67. Hongbo Deng, Jiawei Han, Hao Li, Heng Ji, **Hongning Wang** and Yue Lu. *Exploring and Inferring User-User Pseudo-Friendship for Sentiment Analysis with Heterogeneous Networks.* SIAM International Conference on Data Mining (SDM'2013), p378-386, May 2013. 1 of 10 Nominated Best Papers. (Acceptance rate:25.5%)

68. Mianwei Zhou, **Hongning Wang** and Kevin Chen-Chuan Chang. *Learning to Rank from Distant Supervision: Exploiting Noisy Redundancy for Relational Entity Search.* The 29th IEEE International Conference on Data Engineering (ICDE'2013), p829-840, April 2013. (Acceptance rate:20%)

69. Yue Lu, **Hongning Wang**, ChengXiang Zhai and Dan Roth. *Unsupervised Discovery of Opposing Opinion Networks From Forum Discussions.* The 21st ACM International Conference on Information and Knowledge Management (CIKM'2012), p1642-1646, October 2012. (Acceptance rate:27.8%)

70. **Hongning Wang**, Anlei Dong, Lihong Li, Yi Chang and Evgeniy Gabrilovich. *Joint Relevance and Freshness Learning From Clickthroughs for News Search.* The 2012 World Wide Web Conference (WWW'2012), p579-588, April 2012. (Acceptance rate:12.5%)

71. **Hongning Wang**, Yue Lu and ChengXiang Zhai. *Latent Aspect Rating Analysis without Aspect Keyword Supervision*. In Proceedings of the 17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'2011), p618-628, August 2011. (Acceptance rate:18%)

72. **Hongning Wang**, Chi Wang, ChengXiang Zhai and Jiawei Han. *Learning Online Discussion Structures by Conditional Random Fields*. In Proceedings of the 34th Annual International ACM SIGIR Conference (SIGIR'2011), p435-444, July 2011. (Acceptance rate:20%)

73. **Hongning Wang**, Duo Zhang and ChengXiang Zhai. *Structural Topic Model for Latent Topical Structure Analysis*. In Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies (ACL'2011), p1526-1535, June 2011. (Acceptance rate:26%)

74. Yue Lu, Huizhong Duan, **Hongning Wang** and ChengXiang Zhai. *Exploiting Structured Ontology to Organize Scattered Online Opinions*. In Proceedings of the 23rd International Conference on Computational Linguistics (COLING'2010), p734–742, August 2010. (Acceptance rate:41%)

75. **Hongning Wang**, Yue Lu and ChengXiang Zhai. *Latent Aspect Rating Analysis on Review Text Data: A Rating Regression Approach*. In Proceedings of the 16th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'10), p783-792, July 2010. (Acceptance rate:15%)

76. **Hongning Wang**, Minlie Huang and Xiaoyan Zhu. *A Generative Probabilistic Model for Multi-Label Classification*. In Proceedings of the IEEE 8th International Conference on Data Mining (ICDM'08), p628-637, December 2008. (Acceptance rate:19%)

Book chapters

1. **Hongning Wang** and ChengXiang Zhai. *Generative Models for Sentiment Analysis and Opinion Mining*, in Dipankar Das,Erik Cambria and Sivaji Bandyopadhyay (eds), "A Practical Guide to Sentiment Analysis", Springer, 2016.

2. **Hongning Wang**, Anlei Dong and Yi Chang. *Joint Learning Approach from Clickthroughs*, in Bo Long and Yi Chang (eds), "Relevance Ranking for Vertical Search Engines", Morgan Kaufmann Publisher, 2014, p10-26.

h-index & Citations

Google Scholar (by January 20, 2020)

- https://scholar.google.com/citations?user=qkdvKNoAAAAJ
- h-index: 25
- Citations: 2723

Graduate Students

Doctor of Philosophy

- Lin Gong, 2014-19, graduated in June 2019, thesis title: "*Insights: from Social Psychology to Computational User Modeling*". Now works at Walmart Lab as a Senior Software Engineer.
- Qingyun Wu, 2014-20, graduated in May 2020, thesis title: "*Interactive Online Learning With Incomplete Knowledge*". Now works at Microsoft Research New England Lab as a post-doc researcher, and will join the College of Information Sciences and Technology at Penn State University as an Assistant Professor in August 2021.

- Huazheng Wang, 2015-now, passed qualifying exam in May 2018; expected to take dissertation proposal in October 2020
- Renqin Cai, 2015-now, qualifying exam scheduled in October 2019; expected to take dissertation proposal in October 2020
- Yiling Jia, 2016-now, passed qualifying exam in April 2019; expected to take dissertation proposal in October 2020
- Lu Lin, 2017-now, passed qualifying exam in March 2020; expected to take dissertation proposal in October 2020
- Nan Wang, 2018-now, passed qualifying exam in March 2020
- Chuanhao Li, 2018-now, qualifying exam expected in October 2020
- Fan Yao, 2019-now, qualifying exam expected in February 2021
- Zhendong Chu, 2019-now, qualifying exam expected in February 2021

Master of Science

- Peng Wang, 2021-22, thesis title: "*Evaluation in Explainable Recommendation*"
- Aobo Yang, 2018-20, thesis title: "*Neural Explainable Recommendation*"
- Akshat Pandey, 2018-19, thesis title: "*Towards Semantic Search in Building Metadata*", now a Ph.D. student at the George Washington University
- Jibang Wu, 2018-19, thesis title: "*Temporal Attention Mechanism for Sequential Recommendation*", now a Ph.D. student at the University of Virginia
- Sonwoo Kim, 2017-18, thesis title: "*Efficient Exploration of Gradient Space of Online Learning to Rank*"
- Md Mustafizur Rahman, 2014-16, thesis title: "*Hidden Topic Sentiment Model*", now a Ph.D. student at the University of Texas at Austin.
- Michael Voltmer, 2015-16, Data Science, research project: "*Word Embedding based Document Representation*", now a Analyst at Baseball Operations at Los Angeles Dodgers
- Adam Jiang, 2015-16, Data Science, research project: "*Word Embedding based Document Representation*", now a Senior Data Scientist at Apple
- Jason Lewris, 2015-16, Data Science, research project: "*Word Embedding based Document Representation*", now a Data Scientist at Microsoft
- Ammar Hassan, 2014-15, thesis title: "*Non-Stationary Contextual Multi-Armed Bandit With Application In Online Recommendations*", now the CTO of Telehealth Management, LLC.

Master of Computer Science

- Fuxiao Liu, 2020-21, research project: "*Attribute-focused Explainable Recommendation*"
- Yiqi Tang, 2018-19, research project: "*Active Learning in Structured Prediction Tasks*", now a Ph.D. student at The Ohio State University.
- Fu Hao, 2018-19, research project: "*Collaborative Contextual Bandits*"
- Karthik Chinnathambi, 2018-19, research project: "*Building Search Engine*", now a Software Engineer at Walmart Labs
- Xueying Bai, 2017-18, research project: "*Modeling Sequential Online Interactive Behaviors with Temporal Point Process*", now a Ph.D. student at the Stony Brook University
- Yuting Wang, 2016-17, research project: "*Temporal Topic Modeling*", now a Software Engineer at Amazon
- Sandesh Gade, 2017-18, research project: "*ReviewMiner: An Aspect-based Review Analytics System*", not an Associate Software Engineer at Clarabridge
- Yuting Wang, 2017-18, research project: "*Temporal Topical Analysis with Hawkes Process*"
- Chao Jiang, 2017-18, research project: "*Multi-Sense Word Embedding*"
- Wasi Ahmad, 2015-17, research project: "*Intent-aware Query Obfuscation for Pri-*

vacy Protectionin Personalized Web Search", now a Ph.D. student at the University of California, Los Angeles
- Hao Wu, 2016-17, research project: "*Mining Social Networks using Heat Diffusion Process*", now a Ph.D. student at the Northeastern University

Undergraduate Students

- Jason Jabbour, 2019-21, Independent Study: *"Monitoring and Improving Patient-Caregiver Relation "*.
- Aishwarya Gavili, 2021-22, Capstone Project: *"Towards Semantic Search in Building Metadata"*.
- Shivaen Ramshetty, 2020-21, Capstone Project: *"Fairness in Sequential Recommendation"*
- Ethan Blaser, 2020-21, distinguish major program thesis: *"Community-Aware Network Embedding"*
- Kaiying Shan, 2020-21, Independent Study: *"Chrome Extension for Personalized Web Search"*.
- Andrew Wang, 2020-21, Independent Study: *"Chrome Extension for Personalized Web Search"*.
- Max Zhang, 2020, Independent Study: *"Query-by-example for Time-series Search"*.
- Andrew Villca-Rocha, 2020-21, Independent Study: *"Towards Semantic Search in Building Metadata"*.
- Chenghan Zhou, 2020-21, Independent Study: *"Adversarial Attacks on Online Learning to Rank algorithms"*.
- Owen Gentry, 2019-20, Independent Study: *"BanditLib: An Open Library for Bandit Algorithms"*.
- Michael Klaczynski, 2019-20, Capstone Project: *"A Neural Network Search Engine"*.
- Matt Lee, 2019-20, Capstone Project: *"Adversarial Attack on Deep Reinforcement Learning"*.
- Quinlan Dawkins, 2019-20, Capstone Project: *"Adversarial Attack on Deep Reinforcement Learning"*.
- Caleb Kang, 2019-20, Capstone Project: *"Frontend Design for a Building Search Engine"*.
- Robert Haga, 2019-20, Capstone Project: *"Evaluation of Explainable Recommender Systems"*.
- David Zhao, 2018-19, Capstone Project: *"Private Multi-Armed Bandits"*, now a Software Engineer at Palantir Technologies.
- Leo Alberto, 2018-19, Capstone Project: *"Investigating Fairness in Virginia's Criminal Justice System"*, now a Software Engineer at Washington Post.
- Elijah Lewis, 2018-19, distinguish major program thesis: *"Patient Attrition Prediction"*, now a Software Engineer at Epic.
- Aditya Kamath, 2018-19, distinguish major program thesis: *"Incentive Compatible Multi-Round Mechanism Design to Ensure Quality Data Generation from Users"*.
- Mike Song, 2018-19, Independent Study: *"Joint Text and Network Analysis"*, now a Quantitative Analyst at J.P. Morgan Asset Management.
- Han Jin, 2018-19, Capstone Project: *"Relation Inference in Building Metadata"*.
- Brandon Whitefield, 2017-18, Capstone Project: *"BanditLib: An Open Implementation of Bandit Algorithms"*.
- Yijie Sun, 2017-18, Capstone Project: *"Personalized Sentiment Analysis for Amazon Reviews"*, now a Software Engineer at Citadel.
- Tong Qiu, 2017-18, Capstone Project: *"Personalized Sentiment Analysis for Amazon Reviews"*.
- Owen Khoury, 2017-18, Independent Study: *"Joint Text and Network Analysis"*, now a Software Developer at Oracle Data Cloud.

- Maurice Wong, 2017-18, Capstone Project: *"Joint Text and Network Embedding"*, now a Software Engineer at Facebook.
- Henry Gerard, 2017-18, Capstone Project: *"Joint Text and Network Embedding"*.
- Gloria Li, 2017-18, Capstone Project: *"Exploring Query Auto-Completion for Data Monetization"*, now a software engineer at Google.
- Yue Yin, 2017-18, Capstone Project: *"Exploring Query Auto-Completion for Data Monetization"*.
- Jiahong Chen, 2017-18, Capstone Project: *"Exploring Query Auto-Completion for Data Monetization"*.
- Matt Lee, 2017-18, Independent Study: *"Multi-task Neural Ranking Models"*.
- Naveen Iyer, 2016-18, Capstone Project: *"Online Recommendation in A Non-Stationary Environment"*, now a Software Engineer at Instagram.
- Divya Patel, 2016-18, Capstone Project: *"Collaborative Online Recommendation"*. Now a software engineer at Sumo Logic.
- Jonathan Lee, 2017-18, Capstone Project: *"ReviewMiner"*. Now a Management Consultant at Oliver Wyman.
- Marina Sanusi, 2016-18, Capstone Project: *"Automated Obscuration of Software Authorship"*. Now a Software Engineer at Software Engineer at APT.
- Benjamin Haines, 2016-17, Independent Study: *"Clustered Model Adaptation for Personalized Sentiment Analysis"*. Now a Software Developer at Yext.
- Derek Wu, 2016-17, Capstone Project: frontend design of ReviewMiner system. Now a Software Engineer at The Trade Desk, Inc.
- Kwame Asante, 2016-17, Capstone Project: *"Privacy Preserving Chrome Extension"*. Now a Associate Software Engineer at Capital One.
- Zihan Ni, 2016-17, *"Intent-aware Query Obfuscation for Privacy Preserving Personalized Web Search"*. Now a Software Development Engineer II at Oracle.
- Daniel Coo, 2016, Independent Study: *"Natural Language based Code Search Engine"*, now a Tech Arch Analyst at Accenture Federal Services.
- Jessica Jassal, 2016, Independent Study: *"User Behavior Logging in ReviewMiner System"*, now a Software Engineer at Innovative Defense Technologies.
- Kevin Zhao, 2015-17, Independent Study: *"User Behavior Logging in ReviewMiner System"*, now a Software Engineer at Cisco.
- Aaren Barge, 2015-16, Independent Study: *"Predicting Tweet Popularity using Semantic Features in Content Controlled Datasets"*. Now a Business Analyst at McKinsey & Company.
- Himanshu Ojha, 2015-16, Independent Study: *"Predicting Tweet Popularity using Semantic Features in Content Controlled Datasets"*. Now a Software Development Engineer at Amazon.

Visitors & Post-Docs

Visiting Scholars

- Shuheng Li, Summer 2019, junior from Peking University, research project: *"Relation Inference among Sensor Time Series in Commercial Buildings"*
- Jinshuo Liu, 2018-19, associate professor from Wuhan University, research project: *"Mining Social Media for Social Event Detection and Prediction"*.
- Zhendong Chu, Summer 2018, junior from Fudan University, research project: *"Accounting for Temporal Dynamics in Modeling Document Streams"*, now a Ph.D. student at the University of Virginia.
- Zhige Li, Summer 2018, junior from Shanghai Jiao Tong University, research project: *"Factorization Bandits for Online Influence Maximization"*
- Yiyi Tao, Summer 2018, junior from Peking University, research project: *"Taming Latent Factor Models for Explainability with Factorization Trees"*
- Jian Guan, Summer 2018, graduate from Tsinghua University, research project: *"Reinforcement Learning via Off-Policy Evaluation"*.

- Nipun Batra, 2017-18, Post Doc, research project: *"Scalable Energy Breakdown for Homes"*, now an assistant professor in the CS department at IIT Gandhinagar.
- Nan Wang, Summer 2017, junior from Shanghai Jiao Tong University, research project: *"Explainable Recommendation"*, now a Ph.D. student at the University of Virginia.
- Puxuan Yu, Summer 2017, junior from Wuhan University, research project: *"Hide-n-Seek: An Intent-aware Privacy Protection Plugin for Personalized Web Search"*.
- Yuling Shi, 2015-18, Ph.D. student from Wuhan University, research project: *"Modeling Student Learning Behaviors in MOOCs"*.
- Jiachuan Deng, Summer 2016, sophomore from Beijing University of Posts and Telecommunications, research project: *"Aspect-based Sentiment Analysis"*.

Research Grants

External Grants

III: Small: Towards Explainable Personalization, PI
- Sponsor: NSF IIS-2007492
- Total Amount: $500,000$; $Share$:250,000
- PI: **Hongning Wang**
- Period: October 1st, 2020 to September 30th, 2023.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=2007492

Personalized and Private Online Learning to Rank, Sole PI
- Sponsor: Google Inc.
- Total Amount: $54,139; Share: $54,139
- PI: **Hongning Wang**
- Period: April 1st, 2020 to March 30th, 2021.

Relevance Estimation in Long-tail Queries, Sole PI
- Sponsor: Alibaba Inc.
- Total Amount: $100,000; Share: $100,000
- PI: **Hongning Wang**
- Period: September 1st, 2019 to August 31st, 2020.

SCH: INT: Collaborative Research: Learning and Improving Alzheimer's Patient-Caregiver Relationships via Smart Healthcare Technology, Co-PI
- Sponsor: NSF IIS-1838615
- Total Amount: $1,197,800; Share: $372,174
- PI: John Stankovic; co-PI(s): **Hongning Wang**, Karen Rose, and Kristina Gordon
- Period: January 1st, 2019 to December 31st, 2022.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=1838615

Student Support for the 41st International ACM Conference on Research and Development in Information Retrieval (SIGIR-2018), Sole PI
- Sponsor: NSF IIS-1826925
- Total Amount: $25,000; Share: $25,000
- PI: **Hongning Wang**
- Period: March 6th, 2018 to March 5th, 2019.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=1826925

The Building Adapter: Automatic Mapping of Commercial Buildings for Scalable Building Analytics, PI
- Sponsor: Department of Energy (DOE), Buildings Energy Efficiency Frontiers and Innovation Technologies (BENEFIT)

- Total Amount: $555,852; Share: $555,852
- PI: **Hongning Wang**; co-PI: Kamin Whitehouse
- Period: January 1st, 2018 to January 31st, 2020.
- https://www.energy.gov/nepa/downloads/cx-100973-building-adapter-automatic-mapping-commercial-buildings-scalable-building

Snap Academic Research Award, Sole PI
- Sponsor: Snap Inc.
- PI: **Hongning Wang**
- Total Amount: $18,500; Share: $18,500
- Period: October 1st, 2017 to September 30th, 2019.

III: Small: Cyber Physical Mappings – Empower Building Analytics at Scale, PI
- Sponsor: NSF IIS-1718216
- Total Amount: $500,000; Share: $250,000
- PI: **Hongning Wang**; co-PI: Kamin Whitehouse
- Period: August 1st, 2017 to July 31st, 2020.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=1718216

Center for Visual and Decision Informatics (CVDI) I/UCRC site at the University of Virginia, Co-PI
- Sponsor: NSF CNS-1650512
- Total Amount: $500,000
- PI: Peter Beling; co-PI(s): Donald Brown, William Scherer, Matthew Gerber, and **Hongning Wang**
- Period: October 1st, 2016 to September 30th, 2020.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=1650512

CPS: TTP Option: Breakthrough: Collaborative Sensing: An Approach for Immediately Scalable Sensing in Buildings, Co-PI
- Sponsor: NSF CNS-1646501
- Total Amount: $425,000; Share: $212,500
- PI: Kamin Whitehouse; co-PI: **Hongning Wang**
- Period: October 1st, 2016 to September 30th, 2020.
- https://www.nsf.gov/awardsearch/showAward?AWD_ID=1646501

Techniques for Automatic Mapping of Commercial Buildings for Scalable Building Analytics, Co-PI
- Sponsor: Trane Corp
- Total Amount: $106,534; Share: $53,267
- PI: Kamin Whitehouse; co-PI: **Hongning Wang**
- Period: June 1st, 2016 to October 31st, 2017.

III: Small: Collaborative Learning with Incomplete and Noisy Knowledge, Co-PI
- Sponsor: NSF IIS-1618948
- Total Amount: $500,000; Share: $250,000
- PI: Quanquan Gu; co-PI: **Hongning Wang**
- Period: August 1st, 2016 to July 31st, 2020.
- http://www.nsf.gov/awardsearch/showAward?AWD_ID=1618948

CAREER: Human-Centric Knowledge Discovery and Decision Optimization, Sole PI
- Sponsor: NSF IIS-1553568
- Total Amount: $534,994; Share: $534,994
- PI: **Hongning Wang**

- Period: January 1st, 2016 to December 31st, 2020.
- http://www.nsf.gov/awardsearch/showAward?AWD_ID=1553568

Yahoo Academic Career Enhancement Award, Sole PI
- Sponsor: Yahoo Inc.
- Total Amount: $10,000; Share: $10,000
- PI: **Hongning Wang**
- Period: October 1st, 2014.

Internal Grants

Incentive Compatible Multi-Round Mechanism Design to Ensure Quality Data Generation from Users, Co-PI
- Sponsor: University of Virginia
- Amount: $60,000; Share: $20,000
- PI: Michael Albert; co-PI(s): **Hongning Wang**, and Denis Nekipelov
- Period: Oct 1st, 2018 to September 30th, 2019.

Revisiting Algorithm Fairness and its Robustness in Adversarial Settings, Co-PI
- Sponsor: UVA School of Engineering and Applied Science
- Amount: $65,000; Share: $15,000
- PI: Mohammad Mahmoody; co-PI(s): David Evans, Peter Beling, and **Hongning Wang**
- Period: September 1st, 2018 to May 31st, 2019.

Privacy-Preserving Personalization, PI
- Sponsor: UVA School of Engineering and Applied Science
- Amount: $69,998; Share: $35,000
- PI: **Hongning Wang**; co-PI(s): David Evans, and Denis Nekipelov
- Period: September 1st, 2016 to May 31th, 2017.

Invited Talks

- Booking.com, November 2020. Invited talk on *"Learning by Exploration'*.
- University of Delaware, Department of Electrical and Computer Engineering, November 2019. Invited talk on *"Taming Latent Factor Models for Explainability"*.
- LinkedIn, May 2019. Invited talk on *"Join Network Embedding with Topic Embedding for User Representation Learning"*.
- Pinterest, May 2019. Invited talk on *"Learning Contextual Bandits in a Non-Stationary Environment"*.
- 2019 CVDI Industry Advisory Board Spring Meeting, University of Virginia, March 2019. Invited talk on *"Interactive Learning with Humans in a Non-Stationary Environment"*.
- Task Intelligence Workshop, the 12th ACM International Conference on Web Search and Data Mining (WSDM'2019), February 2019. Invited talk on *"Context Attentive Document Ranking and Query Suggestion in Search Tasks"*.
- Laboratoire RALI, University of Montreal, December 2018. Invited talk on *"Learning Contextual Bandits in a Non-Stationary Environment"*.
- Department of Statistics, Columbia University, October 2018. Invited talk on *"Bandit Learning in A Non-stationary Environment"*.
- Information Sciences Institute, University of Southern California, February 2018. Invited talk on *"Contextual Bandits in a Collaborative Environment"*.
- Snap Research, February 2018. Invited talk on *"Contextual Bandits in a Collaborative Environment"*.

- Amazon Applied Research Group, October 2017. Invited talk on *"Contextual Bandits in a Collaborative Environment"*.
- Machine Learning Group, Microsoft Research Asia, July 2017. Invited talk on *"Contextual Bandits in a Collaborative Environment"*.
- Department of Computer Science, Tsinghua University, July 2017. Invited talk on *"Contextual Bandits in a Collaborative Environment"*.
- Search science and anti-abuse science group, Yahoo! Labs, March 2016. Invited talk on *"Collaborative Online Learning"*.
- Virginia Tech, Department of Electrical and Computer Engineering, Center for Embedded Systems for Critical Applications, March 2015. Invited talk on *"Human-centric Big Data Mining: Humans as both Producers and Consumers of Big Data"*.
- University of Virginia, Department of Mathematics, Math Club, October 2014. Invited talk on *"Text Mining with Probabilistic Topic Models"*.
- University of Delaware, Department of Electrical and Computer Engineering, October 2014. Invited talk on *"A Task-based Framework for User Behavior Modeling and Search Personalization"*.
- The 4th workshop on Web Search Click Data (WSCD'2014), Feburary 2014. Keynote speech on *"A Search-task-based Framework for Modeling User Search Behaviors"*.
- Search science and anti-abuse science group, Yahoo! Labs, October 2013. Invited talk on *"A Task-Based Framework for Search Log Mining and Personalization"*.

Internal Service

Department of Computer Science

- Graduate program committee, 2014-16
- Colloquium Series co-organizer, 2017-19
- Department chair search committee, 2021

University of Virginia

- Business Data Science cluster search committee, 2018-21
- Presidential Fellows Selection Committee, 2018-19
- School of Data Science Undergraduate Curriculum Committee, 2020-21

Professional Service

Conference Program Committee

- KDD 2021, 2020, 2019, 2018, 2017, 2016, 2015; WWW 2020, 2019, 2018, 2016, 2015; SIGIR 2021, 2020, 2019, 2018, 2017, 2016, 2015; WSDM 2021, 2020, 2017, 2016, 2015; NeurIPS 2020, 2019; ICML 2021, 2020, 2014, 2013, 2012; ICLR 2020; ACL 2019, 2018, 2017, 2015; EMNLP 2020, 2015; AAAI 2019, 2018, 2017; IJCAI 2016; NAACL 2016; ASONAM 2015; CIKM 2017, 2015, 2014; ECIR 2016, 2015, 2014; ECML/PDD 2012; ICDM 2019; ICTIR 2019 (Best Paper Award Committee); SDM 2020

Conference Senior Program Committee

- AAAI 2021 (SPC), CIKM 2020 (SPC, short paper track); WWW 2020 (SPC); WSDM 2019 (SPC),2018 (SPC); NLPCC 2015 (Area chair for search&ads); AIRS 2016 (Area chair)

Journal Reviewer

- Journal of Machine Learning Research (JMLR)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- ACM Transactions on Information Systems (TOIS)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- Neurocomputing
- BMC Bioinformatics
- Information Processing & Management (IPM)

- International Journal of Advanced Information Technology (IJAIT)
- Neural Processing Letters (NEPL)
- World Wide Web Journal
- International Journal of Machine Learning and Cybernetics
- Transactions on Dependable and Secure Computing
- Guest editor of ACM Transactions on Information Systems (TOIS) special issue on "*Search, Mining and their Applications on Mobile Devices*"

Conference Program Chairs

- KDD2020 Student Sponsorship Co-Chair
- SIGIR2018 Student Sponsorship Chair
- WSDM2018 Poster and Demo Session Chair
- CIKM2017 Publicity Chair
- Asia Information Retrieval Societies Conference 2016, area chair
- CCF Conference on Natural Language Processing & Chinese Computing 2015, area chair