





information retrieval, recommendation systems, internet advertising, data mining, natural language processing, and applied machine learning. She has published chapters, journal articles, and papers at top conferences in these areas, such as ACM SIGIR, WWW, CIKM, IEEE ICDM, ICML, COLINGS, HLT. She received NSF Faculty Early Career Award in 2010, an Air Force Research Young Investigator Award in 2008, the Best Paper Award at ACM SIGIR in 2002, and several other awards. Her Information Retrieval and Knowledge Management Lab is doing research sponsored by several government agencies and companies (Microsoft, Yahoo, Google, NEC, Bosch, Nokia etc.). She has served as a consultant or technical advisor for companies. She regularly serves on the program committees of the very best conferences in her research areas. She has served as area chair or senior PC member at ACM SIGIR, EMNLP, and ACM Recommender Systems. She has served as conference co-chair in charge of Information Retrieval area at the ACM Conference on Information and Knowledge Management, and tutorial chair for ACM SIGIR. She is serving as an associate editor for ACM Transaction on Information Systems. Dr. Zhang received her Ph.D. from School of Computer Science at Carnegie Mellon University, specializing in Language and Information Technologies.

**Min Zhang** is an associate professor in the Department of Computer Science and Technology (DCST), Tsinghua University. She received her Bachelor and PhD degrees from DCST at Tsinghua University in 1999 and 2003, respectively. During the past years, she has visited DFKI Germany, City University of HongKong, Kyoto University, and MSRA as visiting researcher. Dr. Zhang specializes in information retrieval, Web user behavior analysis and machine learning. She has published more than 100 papers on important international journals and conferences, such as JASIST, JIR, SIGIR, WWW, WSDM, CIKM, etc. She has participated in TREC (Text Retrieval Conference) benchmarks as the team leader since 2002. Her team has continuously achieved multiple top performances during 10 years. She also contributed in INTENT tasks in NTCIR evaluation as task co-organizer from 2011 to 2013. Dr. Zhang served as PC chair at WSDM 2017, as well as area chairs or senior PC members at CIKM and AIRS, and PC members at SIGIR, WWW, WSDM, KDD, ACL, etc. Currently she is also the executive director of Tsinghua University-Microsoft Research Asia Joint Research Lab on Media and Search, and the vice director of Tsinghua-Sohu Joint Research Lab of Search Technology.

**Chirag Shah** is an Associate Professor in Information School, an Adjunct Associate Professor in Paul G. Allen School of Computer

Science & Engineering, and an Adjunct Associate Professor in Human Centered Design & Engineering (HCDE) at University of Washington. Until recently he was a Visiting Research Scientist at Spotify. His research interests include studies of interactive information retrieval/seeking, trying to understand the task a person is doing and providing proactive recommendations. He also studies social media and data generated by wearable devices as kinds of signals that can help us understand and impact human behaviors. He applies them to various problems related to search, personalization, and recommendation. Recently he has also been exploring ways to reduce bias and bring fairness in search and in general in Machine Learning. His work falls under and uniquely connects Computer Science, Data Science, and Information Science. He received his PhD in Information Science from University of North Carolina (UNC) at Chapel Hill. He holds an MTech, Computer Science & Engineering from Indian Institute of Technology (IIT) Madras, India and an MS, Computer Science from University of Massachusetts (UMass) Amherst. He has published and talked extensively on topics related to social and collaborative information seeking, interactive information retrieval, and social media. He serves as a consultant to the United Nations Data Analytics on various Data Science projects involving social and political issues, peacekeeping, climate change, and energy.

## REFERENCES

- [1] Q. Ai, V. Azizi, X. Chen, and Y. Zhang. 2018. Learning Heterogeneous Knowledge Base Embeddings for Explainable Recommendation. *Algorithms* (2018).
- [2] Xu Chen, Zheng Qin, Yongfeng Zhang, and Tao Xu. 2016. Learning to rank features for recommendation over multiple categories. In *SIGIR*. ACM, 305–314.
- [3] X. Chen, H. Xu, Y. Zhang, J. Tang, Y. Cao, H. Zha, and Z. Qin. 2018. Sequential Recommendation with User Memory Networks. In *WSDM*. ACM.
- [4] Xu Chen, Yongfeng Zhang, and Zheng Qin. 2019. Dynamic Explainable Recommendation based on Neural Attentive Models. *AAAI* (2019).
- [5] Xu Chen, Yongfeng Zhang, Hongteng Xu, Yixin Cao, Zheng Qin, and Hongyuan Zha. 2019. Visually Explainable Recommendation. *SIGIR* (2019).
- [6] X. Xian, Z. Fu, S. Muthukrishnan, G. de Melo, and Y. Zhang. 2019. Reinforcement Knowledge Graph Reasoning for Explainable Recommendation. *SIGIR* (2019).
- [7] Yongfeng Zhang. 2015. Incorporating phrase-level sentiment analysis on textual reviews for personalized recommendation. In *WSDM*. ACM, 435–440.
- [8] Yongfeng Zhang. 2017. Explainable Recommendation: Theory and Applications. *arXiv preprint arXiv:1708.06409* (2017).
- [9] Yongfeng Zhang and Xu Chen. 2018. Explainable Recommendation: A Survey and New Perspectives. *arXiv preprint arXiv:1804.11192* (2018).
- [10] Y. Zhang, G. Lai, M. Zhang, et al. 2014. Explicit Factor Models for Explainable Recommendation based on Phrase-level Sentiment Analysis. *SIGIR* (2014), 83–92.
- [11] Y. Zhang, H. Zhang, et al. 2014. Do Users Rate or Review? Boost Phrase-level Sentiment Labeling with Review-level Sentiment Classification. *SIGIR* (2014).
- [12] Y. Zhang, M. Zhang, Y. Zhang, G. Lai, Y. Liu, et al. 2015. Daily-aware personalized recommendation based on feature-level time series analysis. In *WWW*.
- [13] Y. Zhang, Y. Zhang, and M. Zhang. 2018. Report on EARS' 18: 1st International Workshop on Explainable Recommendation and Search. *SIGIR Forum* (2018).
- [14] Yongfeng Zhang, Yi Zhang, and Min Zhang. 2018. SIGIR 2018 Workshop on Explainable Recommendation and Search (EARS 2018). *SIGIR* (2018).