



Yiqun Liu

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Personal Profile

Yiqun Liu is now working as associate professor and department co-chair at the Department of Computer Science and Technology in Tsinghua University, Beijing, China. His major research interests include Web Search, User Behavior Analysis, and Web Data Mining. He is a senior member of the ACM, a visiting associate professor of National Institute of Informatics (NII) in Japan and a visiting research associate professor of National University of Singapore (NUS).

He serves as the co-Editor-in-Chief of Foundations and Trends in Information Retrieval (FnTIR) and also on the editorial boards of Journal of the Association for Information Science and Technology (JASIST) and Information Retrieval Journal (IRJ). He also serves as Program Co-chair of SIGIR2018, area chair of ACL2018, Program Co-chair of NTCIR-13/14, General Co-chair of AIRS2016 as well as (senior) program committee members of several important international academic conferences including SIGIR, WWW, KDD, IJCAI, CIKM and WSDM. He published over 50 papers in top-tier academic conferences/journals and got over 2,500 citations according to Google scholar (H-index=25). He received the best paper honorable mention award of SIGIR2015 and best student paper award of SIGIR2017. He is also the recipient of Excellent Young Scientists Fund from the National Natural Science Foundation of China (NSFC).

Education

Bachelor of Engineering, Tsinghua University, Beijing, China, 2003;

Ph.D. in Computer Science & Technology, Tsinghua University, Beijing, China, 2007

Research Focuses and achievements

Dr. Liu is generally interested in the research areas of Web search technology and Web user behavior analysis, and has particular interests in improving search performance with the help of user behavior information.

Current commercial search engines face great challenges due to the rapid growth of WWW data and user requests. To improve their performance, he leverages the behavior information of search users, so called "wisdom of the crowd", which has been found

very useful. With the support of National Natural Science Foundation of China and a number of industrial partners including Google, Baidu, Yahoo, Sogou, Alibaba and Samsung, tangible progresses were made in this direction.

The aspects of our recent projects cover User behavior modeling, Web data quality estimation and search performance evaluation. We have published several high-quality papers in TWEB, JASIST, JIR, SIGIR, WWW, CIKM, WSDM, IJCAI, AAAI and some other important journals and conferences. In total, 22 Chinese patents were filed and 10 of them were approved. Algorithms and systems developed from these projects have been adopted by Sogou.com, one of the most popular search engines in China.

Key Grant Information

NSFC Youth Grant: Detection of Web spam pages based on user behavior information (2010-2012, RMB 0.2M)

NSFC Excellent Young Scientists Fund: Information Retrieval and Evaluation (2017-2019, RMB 1.5M)

NSFC Key Program: Heterogeneous Media Content Search for Complex Queries (2018-2022, RMB 3.1M)

Tsinghua-Sogou Joint Research Lab on Web Search Technologies (2007-2020, RMB 60M)

Research Grants from Yahoo Faculty Research and Engagement Program (FREP), Google Code University, Baidu, Alibaba, Samsung and other industrial partners. (2007-2016, around RMB 7M)

Academic services

Program Co-Chair of the 41st International ACM SIGIR conference on Information Retrieval (SIGIR2018).

Editorial Board Member of Information Retrieval Journal (IRJ, springer).

Editorial Board Member of Journal of the Association for Information Science and Technology (JASIST)

Co-Editorial in Chief of Foundations and Trends in Information Retrieval (FnTIR).

Area co-chair of the 56th Annual Meeting of the Association for Computational Linguistics (ACL2018)

Program Co-Chair of NTCIR-13/14 (NII Testbeds and Community for Information Access Research).

General Co-Chair of the Twelfth Asia Information Retrieval Societies Conference (AIRS 2016).

Short Paper Co-Chair of the 40th International ACM SIGIR conference on Information Retrieval (SIGIR2017).

Sponsorship Chair of the 2015 Conference of the Association for Computational Linguistics (ACL2015).

Task coordinator of NTCIR core tasks: INTENT, INTENT-2, IMine, IMine-2.

Senior Program committee members of various top-tier academic conferences including SIGIR, IJCAI, ACL, CIKM etc.

Univeristy/Department Services

Head of the Under-graduate Student Affairs (2007 - 2011)

Head of the Department's Student Affairs Committee (2011-2014)

Vice Chair of the Department (2011-now)

Major Awards

Qian Wei-Chang Chinese Information Processing Award: Youth Innovation Prize, 2010

Best Paper Nomination Award / Best Poster Paper Award, Asian Information Retrieval Societies conference, AIRS 2013

Best Paper Nomination Award, Asian Information Retrieval Societies conference, AIRS 2016

Best Paper Award Honorable Mention, SIGIR 2015

Best Student Paper Award, SIGIR 2017

The Science and Technology Award of Beijing, first grade, 2015.

Selected Publications (2012-2018)

(A complete list of publications can be found at my homepage:

<http://www.thuir.cn/group/~yqliu/>)

Mengyang Liu, **Yiqun Liu**, Jiaxin Mao, Cheng Luo, Min Zhang and Shaoping Ma. "Satisfaction with Failure" or "Unsatisfied Success": Investigating the Relationship between Search Success and User Satisfaction. The Web Conference 2018 (**WWW2018**).

Ning Su, **Yiqun Liu**, Zhao Li, Yuli Liu, Min Zhang and Shaoping Ma. Detecting Crowdturfing "Add to Favorites" Activities in Online Shopping. The Web Conference 2018 (**WWW2018**).

Fuli Feng, Xiangnan He, **Yiqun Liu**, Liqiang Nie and Tat-Seng Chua. Learning on Partial-Order Hypergraphs. The Web Conference 2018 (**WWW2018**).

Chong Chen, Min Zhang, **Yiqun Liu** and Shaoping Ma. Neural Attentional Rating Regression with Review-level Explanations. The Web Conference 2018 (**WWW2018**).

Ye Chen, **Yiqun Liu**, Min Zhang and Shaoping Ma. User Satisfaction Prediction with Mouse Movement Information in Heterogeneous Search Environment. IEEE Transactions on Knowledge and Data Engineering. (**TKDE**)

Yiqun Liu, Yi Chang and Jian-yun Nie. Constructing click models for search users. Information Retrieval Journal (**IRJ**). DOI: 10.1007/s10791-017-9294-x.

Yuli Liu, **Yiqun Liu**, Ke Zhou, Min Zhang and Shaoping Ma. Detecting Collusive Spamming Activities in Community Question Answering. The 26th International World Wide Web Conference (**WWW2017**).

Fan Zhang, **Yiqun Liu**, Xin Li, Min Zhang, Yinghui Xu and Shaoping Ma. Evaluating Web Search with a Bejeweled Player Model. The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017 Best Student Paper Award**).

Cheng Luo, **Yiqun Liu**, Tetsuya Sakai, Fan Zhang, Min Zhang and Shaoping Ma. Evaluating Mobile Search with Height-Biased Gain. The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017**).

Ye Chen, Ke Zhou, **Yiqun Liu**, Min Zhang and Shaoping Ma. Meta-evaluation of Online and Offline Web Search Evaluation Metrics. The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017**).

Xiaohui Xie, **Yiqun Liu**, Xiaochuan Wang, Meng Wang, Zhijing Wu, Yingying Wu, Min Zhang and Shaoping Ma. Investigating Examination Behavior of Image Search Users. The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017**).

Jiixin Mao, **Yiqun Liu**, Huanbo Luan, Min Zhang and Shaoping Ma. Understanding and Predicting Usefulness Judgment in Web Search. (Short paper). The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017**).

Cheng Luo, Yukun Zheng, **Yiqun Liu**, Xiaochuan Wang, Jingfang Xu, Min Zhang and Shaoping Ma. SogouT-16: A New Web Corpus to Embrace IR Research. (Short paper). The 39th ACM SIGIR International Conference on Research and Development in Information Retrieval (**SIGIR2017**).

Yiqun Liu, Xiaohui Xie, Chao Wang, Jian-Yun Nie, Min Zhang and Shaoping Ma. Time-Aware Click Model. ACM Transactions on Information Systems (**TOIS**). Vol. 35, No. 3, Article 16.

Yiqun Liu, Zeyang Liu, Ke Zhou, Meng Wang, Chao Wang, Jiixin Mao, Min Zhang, Shaoping Ma. Predicting Search User Examination with Visual Saliency Information. The 39th ACM SIGIR International Conference on Research on Development in Information Retrieval (**SIGIR2016**)

Jiixin Mao, **Yiqun Liu**, Ke Zhou, Jian-Yun Nie, Min Zhang, Shaoping Ma. When does Relevance Mean Usefulness and User Satisfaction in Web Search? The 39th ACM SIGIR

International Conference on Research on Development in Information Retrieval (**SIGIR2016**)

Yuli Liu, **Yiqun Liu**, Min Zhang and Shaoping Ma. Pay Me and I'll Follow You: Detection of Crowdturfing Following Activities in Microblog Environment. The 25th International Joint Conference on Artificial Intelligence (**IJCAI2016**)

Yiqun Liu, Ye Chen, Jinhui Tang, Jiashen Sun, Min Zhang, Shaoping Ma, Xuan Zhu, Different users, Different Opinions: Predicting Search Satisfaction with Mouse Movement Information. The 38th ACM SIGIR International Conference on Research on Development in Information Retrieval (**SIGIR2015**)

Chao Wang, **Yiqun Liu**, Meng Wang, Ke Zhou, Jian-Yun Nie, Shaoping Ma, Incorporating Non-sequential Behavior into Click Models. The 38th ACM SIGIR International Conference on Research on Development in Information Retrieval (**SIGIR2015 Best Paper Honorable Mention**).

Zeyang Liu, **Yiqun Liu**, Ke Zhou, Min Zhang, Shaoping Ma, Influence of Vertical Result in Web Search Examination. The 38th ACM SIGIR International Conference on Research on Development in Information Retrieval (**SIGIR2015**).

Huiqi Hu, **Yiqun Liu**, Guoliang Li, Jianhua Feng, A Location-Aware Publish/Subscribe Framework for Parameterized Spatio-Textual Subscriptions, The 31st IEEE International Conference on Data Engineering (**ICDE2015**)

Xin Li, **Yiqun Liu**, Min Zhang, Shaoping Ma, Xuan Zhu, Jiashen Sun, Detecting Promotion Campaigns in Community Question Answering, International Joint Conference on Artificial Intelligence (**IJCAI2015**)

Chao Wang, **Yiqun Liu**, Min Zhang, Shaoping Ma, MeihongZheng, Jing Qian, Kuo Zhang. Incorporating Vertical Results into Search Click Models. The 36th ACM SIGIR International Conference on Research on Development in Information Retrieval (**SIGIR2013**)

Qianli Xing, **Yiqun Liu**, Min Zhang, Shaoping Ma, and Kuo Zhang. Characterizing Expertise of Search Engine Users. The Ninth Asian Information Retrieval Societies Conference (**AIRS2013 Best paper nomination award**).