Yangqiu Song

Associate Professor
Department of Computer Science and Engineering,
Hong Kong University of Science and Technology
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EDUCATION

09/2003–01/2009   PhD
Department of Automation, Tsinghua University, Beijing, P.R. China
Thesis: *Semi-Supervised Bayesian Discriminative Learning Framework and Its Applications*
Thesis Advisor: Changshui Zhang

09/1999–07/2003   B.Eng. in Automation Technology
Department of Automation, Tsinghua University, Beijing, P.R. China

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WORKING EXPERIENCES

07/2022–Present   Associate Professor, Department of Computer Science and Engineering, Hong Kong University of Science and Technology

01/2022–Present   Visiting Academic Scholar

09/2019–Present   Associate Director, HKUST-WeBank Joint Lab

09/2018–07/2021   Associate Director, WeChat-HKUST Joint Lab on Artificial Intelligence Technology

06/2016–06/2022   Assistant Professor, Department of Computer Science and Engineering, Hong Kong University of Science and Technology

10/2015–05/2016   Assistant Professor, Lane Department of Computer Science and Electrical Engineering, West Virginia University

10/2013–10/2015   Post-doctoral Researcher, Department of Computer Science, University of Illinois at Urbana-Champaign.
Advisor: Professor Dan Roth

10/2012–10/2013   Post-doctoral Researcher, Department of Computer Science and Engineering, Hong Kong University of Science and Technology, Hong Kong;
Visiting Researcher. Noah's Ark Lab, Huawei Technologies, Hong Kong.
Advisor: Professor Qiang Yang

11/2010–10/2012   Associated Researcher, Web Search and Mining, Microsoft Research Asia, Beijing, P.R. China.

03/2009–11/2010   Staff Researcher, Smart Visual Analytics Group, IBM Research – China, Beijing, P.R. China.

10/2007–05/2008   Intern, Google China Research, Beijing, P.R. China.

11/2006–10/2007   Intern, Logistic and Supply Chain Group, IBM Research – China, Beijing, P.R. China.

Teaching Experiences

09/2016–12/2016	Department of Computer Science and Engineering, Hong Kong University of Science and Technology.

2023 MSBD5018: Natural Language Processing (Fall 2023).

COMP5222: Advanced Machine Learning with Graphs (Fall 2023).

MSBD5018: Natural Language Processing (Spring 2023).

COMP4322/RMBI4310: Big Data Mining and Management (Spring 2023).

2022

COMP4222: Machine Learning with Structured Data (Fall 2022).

MSBD5018: Natural Language Processing (Spring 2022).

COMP4322/RMBI4310: Big Data Mining and Management (Spring 2022).

2021

COMP5222/MATH5471: Statistical Learning Models for Text and Graph Data (Fall 2021).

MSBD6000H: Natural Language Processing (Spring 2021).

COMP4322/RMBI4310: Big Data Mining and Management (Spring 2021).

2020

COMP4901K/MATH4824B: Machine Learning for Natural Language Processing (Fall 2020).

COMP4322/RMBI4310: Big Data Mining and Management (Spring 2020).

2019

COMP5222/MATH5471: Statistical Learning Models for Text and Graph Data (Fall 2019).

COMP4322/RMBI4310: Big Data Mining and Management (Spring 2019).

2018

COMP4901K/MATH4824B: Machine Learning for Natural Language Processing (Fall 2018).

COMP6211B/MATH6450D: Statistical Learning for Text Data Analytics (Spring 2018).

2017

COMP3211: Fundamentals of Artificial Intelligence (Spring 2017, Fall 2017).

2016

COMP6211A: Topics in Text Mining and Knowledge Graph Construction, Inference, and Applications (Fall 2016).

01/2016–05/2016	Lane Department of Computer Science and Electrical Engineering, West Virginia University.

CS472: Artificial Intelligence (Spring 2016).

11/2015–11/2015	Lecturer for two weeks, Lane Department of Computer Science and Electrical Engineering, West Virginia University.

CS493N: Big Data Engineering (Fall 2015).

Student Supervision

PhD Students	Zhaowei Wang (Since Fall 2023, HKPF)
	Jiayang Cheng (Since Fall 2023, HKPF)
	Jacky Chun Kit Chan (Since Fall 2023, HKPF)

	Weiqi Wang (Since Fall 2022, HKPF)
	Zheye Deng (Since Fall 2022, HKPF)
	Shuai Yuan (Since 2020 Fall)
	Qi Hu (Since 2020 Fall)
	Haoran Li (Since 2020 Fall)
	Zihao Wang (Since 2020 Fall, HKPF)
	Jiaxin Bai (Since 2020 Fall, HKPF)
	Zizheng Lin (Since 2019 Fall, HKPF)
	Tianqing Fang (Since 2019 Fall, HKPF)
	Xin Liu (Since 2018 Fall, Huawei Fellowship)
	Hongming Zhang (Fall 2018-Summer 2021, HKPF)
	Hongliang Dai (Fall 2017-Summer 2021)
	Huiru Xiao (Fall 2016-Summer 2022)
	Wenyi Xiao (Fall 2016-Fall 2021)
	Ziqian Zeng (Fall 2016-Summer 2021, HKPF)
	Yinghua Zhang (Fall 2015-Spring 2021, HKPF, Co-supervised with Prof. Qiang Yang)
	Nedjma Ousidhoum (Fall 2014-Summer 2021, Co-supervised with Prof. DY Yeung)
MPhil Students	Wei Fan (Since Fall 2023)
	Yau Wai YIM (Since Fall 2023)
	Peng Xie (Since Fall 2023, Co-supervised with Prof. Kani Chen)
	Louis Chun Yi Bo (Since Fall 2022)
	Zihan Li (Since Fall 2022, Co-supervised with Prof. Bo Li)
	Zirui Wang (Since Fall 2022, Co-supervised with Qian Xu)
	Sehyun Choi (Since Fall 2022, Asian Future Leaders Scholarship Program (AFLSP))
	Van Quyet DO (Since Fall 2022)
	Zhaowei Wang (Since Fall 2021)
	Jiayang Cheng (Since Fall 2021)
	Jacky Chun Kit Chan (Since Fall 2021)
	Gio Tsz Ho Chan (Since Fall 2021)
	Cynwell Yik Lun Lau (Since Fall 2021)
	Ngo Yin Wong (Since 2019 Fall)
	Mutian He (2019 Fall-2022 Spring)
	Haowen Ke (2019 Fall-2022 Summer)
	Haojie Pan (2018 Fall-2020 Winter→Alibaba)
	Yan Liang (2016 Fall-2019 Summer→Financial Industry)
	Hongming Zhang (2016 Fall-2018 Summer→Ph.D., HKUST)
	Ruixiang Zhang (2016 Fall-2018 Summer→Ph.D., UMontreal)
GuangZhou	Nuo Chen (Since Spring 2023, Co-supervised with Prof. Jia Li)
	Zeteng Lin (Since Spring 2023, Co-supervised with Prof. Jing Tang)
	Duanyi Yao (Since Fall 2022, Co-supervised with Prof. Songze Li)
	He Cao (Since Fall 2020, Co-supervised with Prof. Yuan Yao)

Yiran Cheng (Since 2020 Fall, Co-supervised with Prof. Qiong Luo)

Amanda So (Since 2020 Fall, Co-supervised with Prof. Yangguang Huang)

Ying Su (Since 2020 Fall, Co-supervised with Prof. Tong Zhang)

Yue Guo (Since 2020 Fall, Co-supervised with Prof. Yi Yang)

Achievements	Haoran Li: HKUST RedBird Academic Excellence Award for Continuing PhD Students in 2022/23

Tianqing Fang: HKUST RedBird Academic Excellence Award for Continuing PhD Students in 2022/23

Zhaowei Wang: Hong Kong PhD Fellowship (HKPF), 2023

Jiayang Cheng: Hong Kong PhD Fellowship (HKPF), 2023

Jacky Chun Kit Chan: Hong Kong PhD Fellowship (HKPF), 2023

Sehyun Choi: Asian Future Leaders Scholarship Program (AFLSP), 2022

Weiqi Wang: Hong Kong PhD Fellowship (HKPF), 2022

Zheye Deng: Hong Kong PhD Fellowship (HKPF), 2022

Xin Liu: HKUST RedBird Academic Excellence Award for Continuing PhD Students in 2021/22

Haoran Li: HKUST RedBird Academic Excellence Award for Continuing PhD Students in 2021/22

Tianqing Fang: HKUST RedBird Academic Excellence Award for Continuing PhD Students in 2021/22

Xin Liu: HKUST CSE Professor Samuel Chanson Best Teaching Assistant Award 2020

Xin Liu: HKUST School of Engineering Academic Award for Continuing PhD Students 2019-2020

Hongming Zhang: HKUST School of Engineering Academic Award for Continuing PhD Students 2019-2020

Zihao Wang: Hong Kong PhD Fellowship (HKPF), 2020

Jiaxin Bai: Hong Kong PhD Fellowship (HKPF), 2020

Hongming Zhang: Tencent Rhino-Bird Scholarship, 2019

Hongming Zhang: Microsoft Research Asia Fellowship, 2019

Hongliang Dai: HKUST School of Engineering Academic Award for Continuing PhD Students 2018-2019

Ziqian Zeng: HKUST School of Engineering Academic Award for Continuing PhD Students 2018-2019

Zizheng Lin: Hong Kong PhD Fellowship (HKPF), 2019

Tianqing Fang: Hong Kong PhD Fellowship (HKPF), 2019

Xin Liu: Huawei PhD Fellowship, 2018

Hongming Zhang: Hong Kong PhD Fellowship (HKPF), 2018

Ziqian Zeng: Hong Kong PhD Fellowship (HKPF), 2016

Yinghua Zhang: Hong Kong PhD Fellowship (HKPF), 2015

Publications

Book Chapters

1. Wen-Yen Chen, Yangqiu Song, Hongjie Bai, Chih-Jen Lin, and Edward Chang. **Large-scale Spectral Clustering with MapReduce and MPI**, Chapter 12. In Scaling up Machine Learning: Parallel and Distributed Approaches. Eds. Ron Bekkerman, Mikhail Bilenko, and John Langford, 2010.

Journal Special Issues

1. Yangqiu Song. **Special Issue on Federated Machine Learning**. IEEE Data Engineering Bulletin, Vol. 46 No. 1, 2023.

2. Yangqiu Song. **Special Issue on Learning and Reasoning on Knowledge Graphs and Applications**. IEEE Data Engineering Bulletin, Vol. 45, No. 4, 2022.

3. Qiang Yang, Yongxin Tong, Yang Liu, Yangqiu Song, Hao Peng, Boi Faltings. **Federated Learning: Algorithms, Systems, and Applications: Part 2**. ACM Transactions on Intelligent Systems and Technology, Vol. 13, No. 5, 2022.

4. Qiang Yang, Yongxin Tong, Yang Liu, Yangqiu Song, Hao Peng, Boi Faltings. **Federated Learning: Algorithms, Systems, and Applications: Part 1**. ACM Transactions on Intelligent Systems and Technology, Vol. 13, No. 4, 2022.

5. Shimei Pan, Oliver Brdiczka, Andrea Kleinsmith, Yangqiu Song. **Special Issue on Data-Driven Personality Modeling for Intelligent Human-Computer Interaction**. ACM Transactions on Interactive Intelligent Systems, Vol. 10, No. 3, 2020.

Journals

1. Zihao Wang, Hang Yin, Yangqiu Song. **Logical Queries on Knowledge Graphs: Emerging Interface of Incomplete Relational Data**. IEEE Data Engineering Bulletin, Vol. 45, No. 4, p. 3–18, 2022.

2. Zhixian Chen, Tengfei Ma, Zhihua Jin, Yangqiu Song, Yang Wang. **BiGCN: A bi-directional low-pass filtering graph neural network**. Analysis and Applications, Vol. 20, Issue. 6, 2022.

3. Hongming Zhang, Xin Liu, Haojie Pan, Haowen Ke, Jiefu Ou, Tianqing Fang, Yangqiu Song. **ASER: Towards large-scale commonsense knowledge acquisition via higher-order selectional preference over eventualities**. Artificial Intelligence, 309:103740, 2022.

4. Xintong Yu, Hongming Zhang, Ruixin Hong, Yangqiu Song, Changshui Zhang. **VD-PCR: Improving Visual Dialog with Pronoun Coreference Resolution**. Pattern Recognition (PR), 125:108540, 2022.

5. Haotian Li, Yong Wang, Songheng Zhang, Yangqiu Song, and Huamin Qu. **KG4Vis: A Knowledge Graph-Based Approach for Visualization Recommendation**. IEEE Trans. Vis. Comput. Graph (TVCG). Vol. 28, No. 1, p. 195–205, 2022.

6. Hao Peng, Jianxin Li, Yangqiu Song, Renyu Yang, Rajiv Ranjan, Philip S.Yu, and Lifang He. **Streaming Social Event Detection and Evolution Discovery in Heterogeneous Information Networks**. Accepted by ACM Transactions on Knowledge Discovery from Data (TKDD). Vol. 15, No. 5, 89:1-89:33, 2021.

7. Huan Zhao, Quanming Yao, Yangqiu Song, James T. Kwok, and Dik Lun Lee. **Side Information Fusion for Recommender Systems over Heterogeneous Information Network**. Accepted by ACM Transactions on Knowledge Discovery from Data (TKDD). Vol. 15, No. 4, p. 60:1–60:32, 2021.

8. Wenyi Xiao, Huan Zhao, Haojie Pan, Yangqiu Song, Vincent W. Zheng, and Qiang Yang. **Social Explorative Attention based Recommendation for Content Distribution Platform**. Accepted by Data Mining and Knowledge Discovery (DMKD). Vol. 35, No. 2, 533–567, 2021.

9. Jianxin Li, Cheng Ji, Hao Peng, Yu He, Yangqiu Song, Xinmiao Zhang, and Fanzhang Peng. **RWNE: A Scalable Random-Walk based Network Embedding Framework with Personalized Higher-order Proximity Preserved**. Accepted by Journal of Artificial Intelligence Research (JAIR). Vol. 71, 237–263, 2021.

10. Huan Zhao, Xiaogang Xu, Yangqiu Song, Dik Lun Lee, Zhao Chen, and Han Gao. **Ranking Users in Social Networks with Motif-based PageRank**. Accepted by IEEE Trans. on Knowledge and Data Engineering (TKDE). Vol. 33, No. 5, 2179–2192, 2021.

11. Yangqiu Song, Shyam Upadhyay, Haoruo Peng, Stephen Mayhew, and Dan Roth. **Toward Any-language Zero-shot Topic Classification of Textual Documents**. Artificial Intelligence Journal (AIJ), Vol. 274, p. 133–150, 2019.

12. Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang, and Jiawei Han. **Unsupervised Meta-path Selection for Text Similarity Measure based on Heterogeneous Information Networks**. Data Mining and Knowledge Discovery (DMKD), Vol. 32, No. 6, p. 1735–1767, 2018.

13. Chen-Tse Tsai, Stephen Mayhew, Yangqiu Song, Mark Sammons, and Dan Roth. **Illinois CCG LoReHLT 2016 Named Entity Recognition and Situation Frame Systems**. Machine Translation (MT), Vol. 32, No. 1-2, 91–103, 2018.

14. Hailong Sun, Kefan Hu, Yili Fang, and Yangqiu Song. **Adaptive Result Inference for Collecting Quantitative Data with Crowdsourcing**. IEEE Internet of Things Journal (IOT), Vol. 4, No. 5, 1389–1398, 2017.

15. Wanyun Cui, Yanghua Xiao, Haixun Wang, Yangqiu Song, Seung-won Hwang, and Wei Wang. **KBQA: Learning Question Answering over QA Corpora and Knowledge Bases**. Proceedings of the VLDB Endowment (PVLDB), Vol. 10, No. 5, p. 565–576. 2017.

16. Chenguang Wang, Yangqiu Song, Dan Roth, Ming Zhang, and Jiawei Han. **World Knowledge as Indirect Supervision for Document Clustering**. ACM Transactions on Knowledge Discovery from Data (TKDD), Vol. 11, No. 2, p. 13:1–13:36, 2016.

17. Fangzhao Wu, Yangqiu Song, and Yongfeng Huang. **Microblog Sentiment Classification with Heterogeneous Sentiment Knowledge**. Information Sciences, Vol. 373, p. 149–164, 2016.

18. Yi Yang, Shimei Pan, Jie Lu, Mercan Topkara, and Yangqiu Song. **The Stability and Usability of Statistical Topic Models**. ACM Transactions on Interactive Intelligent Systems (TIIS), Vol. 6, No. 2, p. 14:1-14:23, 2016.

19. Ying Wei, Yangqiu Song, Yi Zhen, Bo Liu, and Qiang Yang. **Heterogeneous Translated Hashing: A Scalable Solution towards Multi-modal Similarity Search**. ACM Transactions on Knowledge Discovery from Data (TKDD), Vol. 10, No. 4, p. 36:1–36:28, 2016. (**One of the nine selected best papers from KDD; nine out of 151 accepted papers among 1,036 submissions**)

20. Fangzhao Wu, Yongfeng Huang, Yangqiu Song, and Shixia Liu. **Towards Building a High-Quality Microblog-Specific Chinese Sentiment Lexicon**. Decision Support Systems, Vol. 87, p. 39–49, 2016.

21. Fangzhao Wu, Yongfeng Huang, and Yangqiu Song. **Structured microblog sentiment classification via social context regularization**. Neurocomputing, Vol. 175, part A, p. 599–609, 2016.

22. Yangqiu Song, Shixia Liu, Xueqing Liu, and Haixun Wang. **Automatic Taxonomy Construction from Keywords via Scalable Bayesian Rose Trees**. IEEE Trans. on Knowledge and Data Engineering (TKDE). Vol. 27, No. 7, p. 1861–1874, 2015.

23. Xiaodong Li, Haoran Xie, Yangqiu Song, Shanfeng Zhu, Qing Li, and Fu Lee Wang. **Does Summarization Help Stock Prediction? News Impact Analysis via Summarization**. IEEE Intelligent Systems. Vol. 30, No. 3, p. 26–34, 2015.

24. Shixia Liu, Xiting Wang, Yangqiu Song, and Baining Guo. **Evolutionary Bayesian Rose Trees**. IEEE Trans. on Knowledge and Data Engineering (TKDE). Vol. 27, No. 6, p. 1533–1546, 2015.

25. Erik Cambria, Yangqiu Song, Haixun Wang, and Newton Howard. **Semantic Multi-Dimensional Scaling for Open-Domain Sentiment Analysis**. IEEE Intelligent Systems. Vol. 29, No. 2, p. 44–51, 2014.

26. Guo Xintong, Wang Hongzhi, Yangqiu Song, and Gao Hong. **Brief Survey of Crowdsourcing for Data Mining**. Expert Systems with Applications. Vol. 41, No. 17, p. 7987–7994, 2014.

27. Yangqiu Song, Shimei Pan, Shixia Liu, Furu Wei, Michelle X. Zhou, and Weihong Qian. **Constrained Co-clustering with Unsupervised Constraints for Text Analysis**. IEEE Trans. on Knowledge and Data Engineering (TKDE). Vol. 25, No. 6, p. 1227–1239, 2013.

28. Li Tan, Yangqiu Song, Shixia Liu, and Lexing Xie. **ImageHive: Interactive Content-Aware Image Summarization**. IEEE Computer Graphics and Applications. Vol. 32, No. 1, p. 46–55, 2012.

29. Shixia Liu, Michelle X. Zhou, Shimei Pan, Yangqiu Song, Weihong Qian, Weijia Cai, and Xiaoxiao Lian. **TIARA: Interactive, Topic-based Visual Text Summarization and Analysis**. ACM Transactions on Intelligent Systems and Technology (TIST). Vol. 3, No. 2, p. 25:1–25:28, 2012.

30. Weiwei Cui, Shixia Liu, Li Tan, Conglei Shi, Yangqiu Song, Zekai Gao, Xin Tong, and Huamin Qu. TextFlow: **Towards Better Understanding of Evolving Topics in Text**. IEEE Trans. on Visualization and Computer Graphics (InfoVis Paper). Vol. 17, No. 12, p. 2412–2421, 2011.

31. Shouchun Chen, Fei Wang, Yangqiu Song, and Changshui Zhang. **Semi-supervised ranking aggregation**. Information Processing and Management. Vol. 47, No. 3. p. 415–425, 2011.

32. Wen-Yen Chen, Yangqiu Song, Hongjie Bai, Chih-Jen Lin, and Edward Chang. **Parallel Spectral Clustering in Distributed Systems**. IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI), Vol. 33, No. 3, p. 568–586, 2011.

33. Changshui Zhang, Qutang Cai, and Yangqiu Song. **Boosting with Pairwise Constraints**. Neurocomputing. Vol. 73, No. 4–6, p. 908–919, 2010.

34. Feiping Nie, Shiming Xiang, Yangqiu Song, and Changshui Zhang. **Orthogonal Locality Minimizing Globality Maximizing Projections for Feature Extraction**. Optical Engineering, Vo. 18, No. 1, 2009.

35. Chunxia Zhang, Shiming Xiang, Feiping Nie, and Yangqiu Song. **Nonlinear Dimensionality Reduction with Relative Distance Comparison**. Neurocomputing. Vol. 72, No. 7–9, p. 1719–1731, 2009.

36. Yangqiu Song, Changshui Zhang, Jianguo Lee, Fei Wang, Shiming Xiang, and Dan Zhang. **Semi-Supervised Discriminative Classification with Application to Tumorous Tissues Segmentation of MR Brain Images**. Pattern Analysis and Applications. Vol. 12, No. 2, p. 99–115, 2009.

37. Shiming Xiang, Feiping Nie, Yangqiu Song, Changshui Zhang, and Chunxia Zhang. **Embedding New Data Points for Manifold Learning via Coordinate Propagation**. Knowledge and Information Systems (KAIS) Journal. Vol. 19, No. 2, p. 159–184, 2009.

38. Feiping Nie, Shiming Xiang, Yangqiu Song, and Changshui Zhang. **Extracting the Optimal Dimensionality for Local Tensor Discriminant Analysis**. Pattern Recognition (PR). Vol. 42, No. 1, p. 105–114, 2009.

39. Yangqiu Song, Feiping Nie, and Changshui Zhang. **Semi-Supervised Sub-Manifold Discriminant Analysis**. Pattern Recognition Letters. Vol. 29, No. 13, p. 1806–1813, 2008.

40. Yangqiu Song, Feiping Nie, Changshui Zhang, and Shiming Xiang. **A Unified Framework for Semi-Supervised Dimensionality Reduction**. Pattern Recognition (PR),. Vol. 41, No. 9, p. 2789–2799, 2008.

41. Yangqiu Song and Changshui Zhang. **Content Based Information Fusion for Semi-Supervised Music Genre Classification**. IEEE Trans. on Multimedia (TMM). Vol. 10, No. 1, p. 145–152, 2008.

42. Shiming Xiang, Feiping Nie, Yangqiu Song, and Changshui Zhang. **Contour Graph Based Human Tracking and Action Sequence Recognition**. Pattern Recognition (PR). Vol. 41, No. 12, p. 3653–3664, 2008.

Conferences

1. Jiaxin Bai, Chen Luo, Zheng Li, Qingyu Yin, Bing Yin, Yangqiu Song. **Knowledge Graph Reasoning over Entities and Numerical Values**. ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2023.

2. Weiqi Wang, Tianqing Fang, Baixuan Xu, Chun Yi Louis Bo, Yangqiu Song, Lei Chen. **CAT: A Contextualized Conceptualization and Instantiation Framework for Commonsense Reasoning**. Association for Computational Linguistics (ACL), 2023.

3. Zhaowei Wang, Quyet V. Do, Hongming Zhang, Jiayao Zhang, Weiqi Wang, Tianqing Fang, Yangqiu Song, Ginny Y. Wong, Simon See. **COLA: Contextualized Commonsense Causal Reasoning from the Causal Inference Perspective**. Association for Computational Linguistics (ACL), 2023.

4. Haoran Li, Mingshi Xu, Yangqiu Song. **Sentence Embedding Leaks More Information than You Expect: Generative Embedding Inversion Attack to Recover the Whole Sentence**. Findings of ACL, 2023.

5. Zihao Wang, Weizhi Fei, Hang Yin, Yangqiu Song, Ginny Y. Wong, Simon See. **Wasserstein-Fisher-Rao Embedding: Logical Query Embeddings with Local Comparison and Global Transport**. Findings of ACL, 2023.

6. Changlong Yu, Weiqi Wang, Xin Liu, Jiaxin Bai, Yangqiu Song, Zheng Li, Yifan Gao, Tianyu Cao, Bing Yin. **FolkScope: Intention Knowledge Graph Construction for E-commerce Commonsense Discovery**. Findings of ACL, 2023.

7. Chunkit Chan, Xin Liu, Jiayang Cheng, Zihan Li, Yangqiu Song, Ginny Y. Wong, Simon See. **DiscoPrompt: Path Prediction Prompt Tuning for Implicit Discourse Relation Recognition**. Findings of ACL, 2023.

8. Chen Luo, Rahul Goutam, Haiyang Zhang, Chao Zhang, Yangqiu Song, Bing Yin. **Implicit Query Parsing at Amazon Product Search**. International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2023.

9. Zihao Wang, Yangqiu Song, Ginny Y. Wong, Simon See. **Logical Message Passing Networks with One-hop Inference on Atomic Formulas**. International Conference on Learning Representations (ICLR), 2023.

10. Hongming Zhang, Yintong Huo, Yanai Elazar, Yangqiu Song, Yoav Goldberg and Dan Roth. **CIKQA: Learning Commonsense Inference with a Unified Knowledge-in-the-loop QA Paradigm**. Findings of EACL, 2023.

11. Zizheng Lin, Hongming Zhang and, Yangqiu Song. **Global Constraints with Prompting for Zero-Shot Event Argument Classification**. Findings of EACL, 2023.

12. Huiru Xiao, Xin Liu, Yangqiu Song, Ginny Y. Wong, and Simon See. **PseudoReasoner: Leveraging Pseudo Labels for Commonsense Knowledge Base Population**. Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.

13. Zhaowei Wang, Hongming Zhang, Tianqing Fang, Yangqiu Song, Ginny Y. Wong, and Simon See. **SubeventWriter: Iterative Sub-event Sequence Generation with Coherence Controller**. Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.

14. Changlong Yu, Tianyi Xiao, Lingpeng Kong, Yangqiu Song, and Wilfred Ng. **An Empirical Revisiting of Linguistic Knowledge Fusion in Language Understanding Tasks**. Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.

15. Ying Su, Zihao Wang, Tianqing Fang, Hongming Zhang, Yangqiu Song, and Tong Zhang. **MICO: A Multi-alternative Contrastive Learning Framework for Commonsense Knowledge Representation**. Findings of EMNLP, 2022.

16. Tianqing Fang, Quyet V. Do, Hongming Zhang, Yangqiu Song, Ginny Y. Wong, and Simon See. **PseudoReasoner: Leveraging Pseudo Labels for Commonsense Knowledge Base Population**. Findings of EMNLP, 2022.

17. Ying Su, Hongming Zhang, Yangqiu Song, and Tong Zhang. **Multilingual Word Sense Disambiguation with Unified Sense Representation**. International Conference on Computational Linguistics (COLING), 2022.

18. Yinghua Zhang, Yangqiu Song, Kun Bai, and Qiang Yang. **Cross-domain Cross-architecture Blackbox Attacks on Fine-tuned Models with Transferred Evolutionary Strategies.** . ACM Conference on Information and Knowledge Management (CIKM), 2022.

19. Xin Liu, Jiayang Cheng, Yangqiu Song, and Xin Jiang. **Boosting Graph Structure Learning with Dummy Nodes**. International Conference on Machine Learning (ICML), 2022.

20. Ziqian Zeng, Weimin Ni, Tianqing Fang, Xiang Li, Xinran Zhao, and Yangqiu Song. **Weakly Supervised Text Classification using Supervision Signals from a Language Model**. Findings of NAACL. 2022.

21. Jiaxin Bai, Zihao Wang, Hongming Zhang, and Yangqiu Song. **Query2Particles: Knowledge Graph Reasoning with Particle Embeddings**. Findings of NAACL. 2022.

22. Haoran Li, Yangqiu Song, and Lixin Fan. **You Don't Know My Favorite Color: Preventing Dialogue Representations from Revealing Speakers' Private Personas**. Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL). 2022.

23. Xinran Zhao, Hongming Zhang, and Yangqiu Song. **PCR4ALL: A Comprehensive Evaluation Benchmark for Pronoun Coreference Resolution in English**. Language Resources and Evaluation (LREC). 2022.

24. Changlong Yu, Hongming Zhang, Yangqiu Song, and Wilfred Ng. **CoCoLM: COmplex COmmonsense Enhanced Language Model**. Findings of ACL. 2022.

25. Ying Su, Hongming Zhang, Yangqiu Song, and Tong Zhang. **Rare and Zero-shot Word Sense Disambiguation using Z-Reweighting**. Annual Meeting of the Association for Computational Linguistics (ACL). 2022.

26. Xin Liu and Yangqiu Song. **Graph Convolutional Networks with Dual Message Passing for Subgraph Isomorphism Counting and Matching**. AAAI Conference on Artificial Intelligence (AAAI). 2022.

27. Zihao Wang*, Hang Yin*, and Yangqiu Song. **Benchmarking the Combinatorial Generalizability of Complex Query Answering on Knowledge Graphs**. Neural Information Processing Systems (NeurIPS) Datasets and Benchmarks Track. 2021.

28. Tianqing Fang*, Weiqi Wang*, Sehyun Choi, Shibo Hao, Hongming Zhang, Yangqiu Song, and Bin He. **Benchmarking Commonsense Knowledge Base Population with an Effective Evaluation Dataset**. Conference on Empirical Methods in Natural Language Processing (EMNLP). 2021.

29. Xintong Yu, Hongming Zhang, Yangqiu Song, Changshui Zhang, Kun Xu, and Dong Yu. **Exophoric Pronoun Resolution in Dialogues with Topic Regularization**. Conference on Empirical Methods in Natural Language Processing (EMNLP). 2021.

30. Tianqing Fang, Haojie Pan, Hongming Zhang, Yangqiu Song, Kun Xu, and Dong Yu. **Do Boat and Ocean Suggest Beach? Dialogue Summarization with External Knowledge**. Conference on Automated Knowledge Base Construction (AKBC). 2021.

31. Huiru Xiao and Yangqiu Song. **Manifold Alignment across Geometric Spaces for Knowledge Base Representation Learning**. Conference on Automated Knowledge Base Construction (AKBC). 2021. (**Outstanding paper award**)

32. Wenyi Xiao, Huan Zhao, Vincent W. Zheng, and Yangqiu Song. **Neural PathSim for Inductive Similarity Search in Heterogeneous Information Networks**. ACM Conference on Information and Knowledge Management (CIKM). 2021.

33. Hao Peng, Haoran Li, Yangqiu Song, Vincent Zheng, Jianxin Li. **Differentially Private Federated Knowledge Graphs Embedding**. ACM Conference on Information and Knowledge Management (CIKM). 2021.

34. Zizheng Lin, Haowen Ke, Ngo-Yin Wong, Jiaxin Bai, Yangqiu Song, Huan Zhao, and Junpeng Ye. **Multi-Relational Graph based Heterogeneous Multi-Task Learning in Community Question Answering**. ACM Conference on Information and Knowledge Management (CIKM). 2021.

35. Yuanxin Zhuang, Chuan Shi, Cheng Yang, Fuzhen Zhuang, and Yangqiu Song. **Semantic-Specific Hierarchical Alignment Network for Heterogeneous Graph Adaptation**, European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD). 2021.

36. Xin Liu, Jiefu Ou, Yangqiu Song, and Xin Jiang. **Exploring Discourse Structures for Argument Impact Classification**, Annual Meeting of the Association for Computational Linguistics (ACL). p. 3958–3969, 2021.

37. Hongliang Dai, Yangqiu Song, and Haixun Wang. **Ultra-Fine Entity Typing with Weak Supervision from a Masked Language Model**, Annual Meeting of the Association for Computational Linguistics (ACL). p. 1790–1799, 2021.

38. Nedjma Ousidhoum, Xinran Zhao, Tianqing Fang, Yangqiu Song, and Dit-Yan Yeung. **Probing Toxic Content in Large Pre-Trained Language Models**. Annual Meeting of the Association for Computational Linguistics (ACL). p. 4262–4274, 2021.

39. Jiaxin Bai, Hongming Zhang, Yangqiu Song, and Kun Xu. **Joint Coreference Resolution and Character Linking for Multiparty Conversation**. Conference of the European Chapter of the Association for Computational Linguistics (EACL). p. 539–548, 2021.

40. Ziqian Zeng and Yangqiu Song. **Variational Weakly Supervised Sentiment Analysis with Posterior Regularization**. Conference of the European Chapter of the Association for Computational Linguistics (EACL). p. 3259–3268, 2021.

41. Tianqing Fang, Hongming Zhang, Weiqi Wang, Yangqiu Song, and Bin He. **DISCOS: Bridging the Gap between Discourse Knowledge and Commonsense Knowledge**. The Web Conference (WWW). p. 2648–2659, 2021.

42. Ziqian Zeng, Rashidul Islam, Kamrun Naher Keya, James Foulds, Yangqiu Song, and Shimei Pan. **Fair Heterogeneous Information Network Representation Learning**. International AAAI Conference on Web and Social Media (ICWSM). p. 877–887, 2021.

43. Nedjma Ousidhoum, Yangqiu Song, and Dit-Yan Yeung. **Comparative Evaluation of Label-Agnostic Selection Bias in Multilingual Hate Speech Datasets**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 2532–2542, 2020.

44. Hongming Zhang, Muhao Chen, Haoyu Wang, Yangqiu Song, and Dan Roth. **Analogous Process Structure Induction for Sub-event Sequence Prediction**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 1541–1550, 2020.

45. Changlong Yu, Jialong Han, Peifeng Wang, Yangqiu Song, Hongming Zhang, Wilfred Ng, and Shuming Shi. **When Hearst Is not Enough: Improving Hypernymy Detection from Corpus with Distributional Models**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 6208–6217, 2020.

46. Haotian Li, Huan Wei, Yong Wang, Yangqiu Song, and Huamin Qu. **Peer-inspired Student Performance Prediction in Interactive Online Question Pools with Graph Neural Network**. ACM Conference on Information and Knowledge Management (CIKM). p. 2589–2596, 2020.

47. Yinghua Zhang, Yangqiu Song, Jian Liang, Kun Bai, and Qiang Yang. **Two Sides of the Same Coin: White-box and Black-box Attacks for Transfer Learning**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 2989–2997, 2020.

48. Xin Liu, Haojie Pan, Mutian He, Yangqiu Song, Xin Jiang, and Lifeng Shang. **Neural Subgraph Isomorphism Counting**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1959–1969, 2020.

49. Changlong Yu, Hongming Zhang, Yangqiu Song, Wilfred Ng, Lifeng Shang . **Enriching Large-Scale Eventuality Knowledge Graph with Entailment Relations**. Conference on Automated Knowledge Base Construction (AKBC). 2020.

50. Hongliang Dai, Xin Li, and Yangqiu Song. **Exploiting Semantic Relations for Fine-grained Entity Typing**. Conference on Automated Knowledge Base Construction (AKBC). 2020.

51. Xin Liu, Jiefu Ou, Yangqiu Song, and Xin Jiang. **On the Importance of Word and Sentence Representation Learning in Implicit Discourse Relation Classification**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3830–3836, 2020.

52. Hongming Zhang, Daniel Khashabi, Yangqiu Song, and Dan Roth. **TransOMCS: From Linguistic Graphs to Commonsense Knowledge**. International Joint Conference on Artificial Intelligence (IJCAI). p. 4004–4010, 2020.

53. Hongming Zhang*, Xinran Zhao*, and Yangqiu Song. **WinoWhy: A Deep Diagnosis of Essential Commonsense Knowledge for Answering Winograd Schema Challenge**. Annual Meeting of the Association for Computational Linguistics (ACL). p. 5736–5745, 2020.

54. Chin Lee, Hongliang Dai, Yangqiu Song, and Xin Li. **A Chinese Corpus for Fine-grained Entity Typing**. Language Resources and Evaluation (LREC). p. 4451–4457, 2020.

55. Yinghua Zhang, Yu Zhang, Ying Wei, Kun Bai, Yangqiu Song, and Qiang Yang. **Fisher Deep Domain Adaptation**. SIAM International Conference on Data Mining (SDM). p. 469–477, 2020.

56. Wenyi Xiao, Huan Zhao, Vincent W. Zheng, and Yangqiu Song. **Vertex-reinforced Random Walk for Network Embedding**. SIAM International Conference on Data Mining (SDM). p. 595–603, 2020.

57. Hongming Zhang*, Xin Liu*, Haojie Pan*, Yangqiu Song, and Cane Wing-Ki Leung. **ASER: A Large-scale Eventuality Knowledge Graph**. The Web Conference (WWW). p. 201–211, 2020.

58. Hongming Zhang*, Jiaxin Bai*, Yan Song, Kun Xu, Changlong Yu, Yangqiu Song, Wilfred Ng, and Dong Yu. **Multiplex Word Embeddings for Selectional Preference Acquisition**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 5246–5255, 2019.

59. Xintong Yu*, Hongming Zhang*, Yangqiu Song, Yan Song, and Changshui Zhang. **What You See is What You Get: Visual Pronoun Coreference Resolution in Conversations**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 5122–5131, 2019.

60. Nedjma Ousidhoum, Zizheng Lin, Hongming Zhang, Yangqiu Song, and Dit-Yan Yeung. **Multilingual and Multi-Aspect Hate Speech Analysis**. Conference on Empirical Methods on Natural Language Processing (EMNLP), p. 4674–4683, 2019.

61. Hongliang Dai, Donghong Du, Xin Li, and Yangqiu Song. **Improving Fine-grained Entity Typing with Entity Linking**. Conference on Empirical Methods on Natural Language Processing (EMNLP), p. 6209–6214, 2019.

62. Yu He, Yangqiu Song, Jianxin Li, Cheng Ji, Jian Peng, and Hao Peng. **HeteSpaceyWalk: A Heterogeneous Spacey Random Walk for Heterogeneous Information Network Embedding**. ACM Conference on Information and Knowledge Management (CIKM). 639–648, 2019.

63. Huan Zhao, Yingqi Zhou, Yangqiu Song, and Dik Lun Lee. **Motif Enhanced Recommendation over Heterogeneous Information Network**. ACM Conference on Information and Knowledge Management (CIKM). p. 2189–2192, 2019.

64. Jie Huang, Xin Liu, and Yangqiu Song. **Hyper-Path-Based Representation Learning for Hyper-Networks**. ACM Conference on Information and Knowledge Management (CIKM). p. 449–458, 2019.

65. Hongming Zhang, Hantian Ding, and Yangqiu Song. **SP-10K: A Large-Scale Evaluation Set for Selectional Preference Acquisition**. Annual Meeting of the Association for Computational Linguistics (ACL). p. 722–731, 2019.

66. Hongming Zhang, Yan Song, Yangqiu Song, and Dong Yu. **Knowledge-aware Pronoun Coreference Resolution**. Annual Meeting of the Association for Computational Linguistics (ACL). p. 867–876, 2019.

67. Hongliang Dai and Yangqiu Song. **Neural Aspect and Opinion Term Extraction with Mined Rules as Weak Supervision**. Annual Meeting of the Association for Computational Linguistics (ACL). p. 5268–5277, 2019.

68. Hao Peng, Jianxin Li, Qirang Gong, Yangqiu Song, Yuanxin Ning, Kunfeng Lai, and Philip Yu. **Fine-grained Event Categorization with Heterogeneous Graph Convolutional Networks**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3238–3245, 2019.

69. Wenyi Xiao, Huan Zhao, Haojie Pan, Yangqiu Song, Vincent W. Zheng, and Qiang Yang. **Beyond Personalization: Social Content Recommendation for Creator Equality and Consumer Satisfaction**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 235–245, 2019.

70. Hongming Zhang, Yan Song, and Yangqiu Song. **Incorporating Context and External Knowledge for Pronoun Coreference Resolution**. Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT). p. 872–881, 2019.

71. Yan Liang, Xin Liu, Jianwen Zhang, and Yangqiu Song. **Relation Discovery with Out-of-Relation Knowledge Base as Supervision**. Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT). p.3280–3290, 2019.

72. Ziqian Zeng, Wenxuan Zhou, Xin Liu, and Yangqiu Song. **A Variational Approach to Weakly Supervised Document-Level Multi-Aspect Sentiment Classification**. Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT). p. 386–396, 2019.

73. Huiru Xiao, Xin Liu, and Yangqiu Song. **Efficient Path Prediction for Semi-Supervised and Weakly Supervised Hierarchical Text Classification.** The Web Conference (WWW). p. 3370–3376, 2019.

74. Ruixiang Zhang, Tong Che, Zoubin Ghahramani, Yoshua Bengio, and Yangqiu Song. **MetaGAN: An Adversarial Approach to Few-Shot Learning**. Annual Conference on Neural Information Processing Systems (NeurIPS). p. 2371–2380, 2018.

75. Hongliang Dai, Yangqiu Song, Liwei Qiu, and Rijia Liu. **Entity Linking within a Social Media Platform: A Case Study on Yelp**. Conference on Empirical Methods in Natural Language Processing (EMNLP). p. 2023–2032, 2018.

76. Shifu Hou, Yanfang Ye, and Yangqiu Song, and Melih Abdulhayoglu. **Make Evasion Harder: An Intelligent Android Malware Detection System**. International Joint Conference on Artificial Intelligence (IJCAI), Sister Conference Best Paper Track. p. 5279–5283, 2018.

77. Ziqian Zeng*, Xin Liu*, and Yangqiu Song. **Biased RandomWalk based Social Regularization for Word Embeddings**. International Joint Conference on Artificial Intelligence (IJCAI). p. 4560–4566, 2018. (*Equal contribution)

78. Hongming Zhang, Liwei Qiu, Lingling Yi, and Yangqiu Song. **Scalable Multiplex Network Embedding**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3082–3088, 2018.

79. Yu He, Jianxin Li, Yangqiu Song, Mutian He, and Hao Peng. **Time-evolving Text Classification with Deep Neural Networks**. International Joint Conference on Artificial Intelligence (IJCAI). p. 2241–2247, 2018.

80. Daniel Khashabi, Mark Sammons, Ben Zhou, Tom Redman, Christos Christodoulopoulos, Vivek Srikumar, Nicholas Rizzolo, Lev Ratinov, Guanheng Luo, Quang Do, Chen-Tse Tsai, Subhro Roy, Stephen Mayhew, Zhilli Feng, John Wieting, Xiaodong Yu, Yangqiu Song, Shashank Gupta, Shyam Upadhyay, Naveen Arivazhagan, Qiang Ning, Shaoshi Ling, and Dan Roth. **CogCompNLP: Your Swiss Army Knife for NLP**. Language Resources and Evaluation Conference (LREC). 2018.

81. Huan Zhao*, Xiaogang Xu*, Yangqiu Song, Dik Lun Lee, Zhao Chen, and Han Gao. **Ranking Users in Social Networks with Higher-Order Structures**. AAAI Conference on Artificial Intelligence (AAAI). 2018. (*Equal contribution)

82. Chen Li, Jianxin Li, Yangqiu Song, and Ziwei Lin. **Training and Evaluating Improved Dependency-Based Word Embeddings**. AAAI Conference on Artificial Intelligence (AAAI). 2018.

83. Hao Peng, Jianxin Li, Yu He, Yaopeng Liu, Mengjiao Bao, Lihong Wang, Yangqiu Song, Qiang Yang: **Large-Scale Hierarchical Text Classification with Recursively Regularized Deep Graph-CNN**. ACM International World-Wide Web Conference (WWW). p. 1063-1072, 2018.

84. Chenguang Wang, Yangqiu Song, Haoran Li, Yizhou Sun, Ming Zhang, and Jiawei Han. **Distant Meta-Path Similarities for Text-Based Heterogeneous Information Networks**. ACM Conference on Information and Knowledge Management (CIKM). p. 1629–1638, 2017.

85. Tao Han, Hailong Sun, Yangqiu Song, Zizhe Wang, and Xudong Liu, **Budgeted Task Scheduling for Crowdsourced Knowledge Acquisition**. ACM Conference on Information and Knowledge Management (CIKM). p. 1059–1068, 2017.

86. Yao Ming, Shaozu Cao, Ruixiang Zhang, Zhen Li, Yuanzhe Chen, Yangqiu Song, and Huamin Qu. **Understanding Hidden Memories of Recurrent Neural Networks**. IEEE Conference on Visual Analytics Science and Technology (VAST), 2017. (**Grand Prize for Best Paper Award in Yelp Dataset Challenge - Round 10, 2018**)

87. Yichun Yin, Yangqiu Song, and Ming Zhang. **Document-Level Multi-Aspect Sentiment Classification as Machine Comprehension**. Conference on Empirical Methods on Natural Language Processing (EMNLP), p. 2034–2044, 2017.

88. Jinxing Yu, Xun Jian, Hao Xin, and Yangqiu Song. **Joint Embeddings of Chinese Words, Characters, and Fine-grained Subcharacter Components**. Conference on Empirical Methods on Natural Language Processing (EMNLP), p. 286–291, 2017. (Extension of a course project in COMP6211A@HKUST, 2016)

89. Shifu Hou, Yanfang Ye, Yangqiu Song, and Melih Abdulhayoglu. **HinDroid: An Intelligent Android Malware Detection System Based on Structured Heterogeneous Information Network**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1507–1515, 2017. (**Winner of applied data science track best paper and best student paper awards; one out of 75 accepted papers among 396 submissions**)

90. Huan Zhao, Quanming Yao, Jianda Li, Yangqiu Song, and Dik Lun Lee. **Meta-Graph Based Recommendation Fusion over Heterogeneous Information Networks**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 635–644, 2017.

91. He Jiang, Yangqiu Song, Chenguang Wang, Ming Zhang, and Yizhou Sun. **Semi-supervised Learning over Heterogeneous Information Networks by Ensemble of Meta-graph Guided Random Walks**. International Joint Conference on Artificial Intelligence (IJCAI). p. 1944–1950, 2017.

92. Ziqian Zeng, Yichun Yin, Yangqiu Song, and Ming Zhang. **Socialized Word Embeddings**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3915-3921, 2017.

93. Hao Peng, Jianxin Li, Yangqiu Song, and Yaopeng Liu. **Incrementally Learning the Hierarchical Softmax Function for Neural Language Models**. AAAI Conference on Artificial Intelligence (AAAI). p. 3267–3273, 2017.

94. Haoruo Peng, Yangqiu Song, Dan Roth. **Event Detection and Co-reference with Minimal Supervision**. Conference on Empirical Methods on Natural Language Processing (EMNLP). p. 392–402, 2016.

95. Shaoshi Ling, Yangqiu Song, Dan Roth. **Word Embeddings with Limited Memory**. Annual Meeting of the Association for Computational Linguistics (ACL). 2016.

96. Chenguang Wang, Yizhou Sun, Yanglei Song, Jiawei Han, Yangqiu Song, Lidan Wang, and Ming Zhang. **Querying Similar Relations in Schema-Rich Heterogeneous Information Networks**. SIAM International Conference on Data Mining (SDM). 2016.

97. Yi Yang, Shimei Pan, Yangqiu Song, Jie Lu, and Mercan Topkara. **Improving Topic Model Stability for Effective Document Exploration**. International Joint Conference on Artificial Intelligence (IJCAI), Sister Conference Best Paper Track. p. 4223-4227, 2016.

98. Tao Han, Hailong Sun, Yangqiu Song, Yili Fang, Xudong Liu, and Jinpeng Huai. **Incorporating External Knowledge into Crowd Intelligence for More Specific Knowledge Acquisition**. International Joint Conference on Artificial Intelligence (IJCAI). p. 1541-1547, 2016.

99. Yangqiu Song, Shyam Upadhyay, Haoruo Peng, and Dan Roth. **Cross-lingual Dataless Classification for Many Languages**. International Joint Conference on Artificial Intelligence (IJCAI). p. 2901-2907, 2016.

100. Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang, and Jiawei Han. **Text Classification with Heterogeneous Information Network Kernels**. AAAI Conference on Artificial Intelligence (AAAI). p. 2130-2136, 2016.

101. Yangxin Zhong, Shixia Liu, Xiting Wang, Jiannan Xiao, and Yangqiu Song. **Tracking Idea Flows between Social Groups**. AAAI Conference on Artificial Intelligence (AAAI). p. 1436-1443, 2016.

102. Ying Wei, Yin Zhu, Cane Wing-ki Leung, Yangqiu Song, and Qiang Yang. **Instilling Social to Physical: Co-Regularized Heterogeneous Transfer Learning**. AAAI Conference on Artificial Intelligence (AAAI). p. 1338-1344, 2016.

103. Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang, and Jiawei Han. **KnowSim: A Document Similarity Measure on Structured Heterogeneous Information Networks**. IEEE International Conference on Data Mining (ICDM). p. 1015–1020, 2015.

104. Deqing Yang, Yanghua Xiao, Yangqiu Song, and Wei Wang. **Semantic-based Recommendation Across Heterogeneous Domains**. IEEE International Conference on Data Mining (ICDM). p. 1075–1080, 2015.

105. Chenguang Wang, Yangqiu Song, Ahmed El-Kishky, Dan Roth, Ming Zhang, and Jiawei Han. **Incorporating World Knowledge to Document Clustering via Heterogeneous Information Networks**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1215-1224, 2015.

106. Ben Tan, Yangqiu Song, Erheng Zhong, and Qiang Yang. **Transitive Transfer Learning**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1155–1164, 2015.

107. Yangqiu Song, Shusen Wang, and Haixun Wang. **Open Domain Short Text Conceptualization: A Generative + Descriptive Modeling Approach**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3820–3826, 2015.

108. Chenguang Wang, Yangqiu Song, Dan Roth, Chi Wang, Jiawei Han, Heng Ji, and Ming Zhang. **Constrained Information-Theoretic Tripartite Graph Clustering to Identify Semantically Similar Relations**. International Joint Conference on Artificial Intelligence (IJCAI). p. 3882–3889, 2015.

109. Yangqiu Song and Dan Roth. **Unsupervised Sparse Vector Densification for Short Text Similarity**. Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (HLT-NAACL). p. 1275–1280, 2015.

110. Yi Yang, Shimei Pan, Yangqiu Song, Jie Lu, and Mercan Topkara. **User-directed Non-disruptive Topic Model Update for Effective Exploration of Dynamic Content**. International Conference on Intelligent User Interfaces (IUI). p. 158–168, 2015. (**Best Paper Award–Honorable Mention; Only one best paper runner up.**)

111. Yangqiu Song, Chenguang Wang, Ming Zhang, Hailong Sun, and Qiang Yang. **Spectral Label Refinement for Noisy and Missing Text Labels**. AAAI Conference on Artificial Intelligence (AAAI). p. 2972–2978, 2015.

112. Fangzhao Wu, Yangqiu Song, and Yongfeng Huang. **Microblog Sentiment Classification with Contextual Knowledge Regularization**. AAAI Conference on Artificial Intelligence (AAAI). p. 2332–2338, 2015.

113. Heting Wu, Hailong Sun, Yili Fang, Kefan Hu, Yongqing Xie, Yangqiu Song, and Xudong Liu. **Combining Machine Learning and Crowdsourcing for Better Understanding Commodity Reviews**. AAAI Conference on Artificial Intelligence (AAAI). p. 4220–4221, 2015. (Student Abstract and Poster Program)

114. Yangqiu Song, Haixun Wang, Weizhu Chen, and Shusen Wang. **Transfer Understanding from Head Queries to Tail Queries**. ACM Conference on Information and Knowledge Management (CIKM). p. 1299–1308, 2014.

115. Ying Wei, Yangqiu Song, Yi Zhen, Bo Liu, and Qiang Yang. **Scalable Heterogeneous Translated Hashing**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 791–800, 2014. (**One of the nine selected best papers for TKDD publication; Nine out of 151 accepted papers among 1,036 submissions.**)

116. Yangqiu Song and Dan Roth. **On Dataless Hierarchical Text Classification**. AAAI Conference on Artificial Intelligence (AAAI). pp, 1579–1585, 2014.

117. Deqing Yang, Yanghua Xiao, Yangqiu Song, Junjun Zhang, Kezun Zhang, and Wei Wang. **Tag Propagation Based Recommendation across Diverse Social Media**. ACM International World-Wide Web Conference (WWW). p. 407–408, 2014.

118. Fangzhao Wu, Yangqiu Song, Shixia Liu, Yongfeng Huang, and Zhenyu Liu. **Lead-Lag Analysis via Sparse Co-Projection in Correlated Text Streams**. ACM International Conference on Information and Knowledge Management (CIKM). p. 2069–2078, 2013.

119. Yangqiu Song, Zhengdong Lu, Cane Wing-ki Leung, and Qiang Yang. **Collaborative Boosting for Activity Classification in Microblogs**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 482–490, 2013.

120. Xiting Wang, Shixia Liu, Yangqiu Song and Baining Guo. **Mining Evolutionary Multi-Branch Trees from Text Streams**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 722–730, 2013.

121. Shimei Pan, Michelle Zhou, Yangqiu Song, Weihong Qian, Fei Wang, and Shixia Liu. **Optimizing Temporal Topic Segmentation for Intelligent Text Visualization**. International Conference on Intelligent User Interfaces (IUI). p. 339–350, 2013.

122. Wen Hua, Yangqiu Song, Haixun Wang, and Xiaofang Zhou. **Identifying Users' Topical Tasks in Web Search**. ACM Conference on Web Search and Data Mining (WSDM). p. 93–102, 2013.

123. Xueqing Liu, Yangqiu Song, Shixia Liu, and Haixun Wang. **Automatic Taxonomy Construction from Keywords**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1433–1441, 2012.

124. Zekai J. Gao, Yangqiu Song, Shixia Liu, Haixun Wang, Hao Wei, Yang Chen, and Weiwei Cui. **Tracking and Connecting Topics via Incremental Hierarchical Dirichlet Processes**. IEEE International Conference on Data Mining (ICDM). p. 1056–1061, 2011.

125. Yangqiu Song, Haixun Wang, Zhongyuan Wang, Hongsong Li, and Weizhu Chen. **Short Text Conceptualization using a Probabilistic Knowledgebase**. International Joint Conference on Artificial Intelligence (IJCAI). 2330-2336, 2011.

126. Zheng Wang, Yangqiu Song, and Changshui Zhang. **Homotopy Regularization for Boosting**. IEEE International Conference on Data Mining (ICDM). p. 1115-1120, 2010.

127. Furu Wei, Shixia Liu, Yangqiu Song, Shimie Pan, Michelle X. Zhou, Weihong Qian, Lei Shi, Li Tan, and Qiang Zhang. **TIARA: A Visual Exploratory Text Analytic System**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 153–162, 2010.

128. Jianwen Zhang, Yangqiu Song, Changshui Zhang, and Shixia Liu. **Evolutionary Hierarchical Dirichlet Processes for Multiple Correlated Time-varying Corpora**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). p. 1079–1088, 2010.

129. Yangqiu Song, Shimei Pan, Shixia Liu, Furu Wei, Michelle X. Zhou, and Weihong Qian. **Constrained Co-clustering for Textual Documents**. AAAI Conference on Artificial Intelligence (AAAI). 2010.

130. Yangqiu Song, Shimei Pan, Shixia Liu, Michelle X. Zhou, and Weihong Qian. **Topic and Keyword Re-ranking for LDA-based Topic Modeling**. ACM Conference on Information and Knowledge Management (CIKM). p. 1757–1760, 2009.

131. Zheng Wang, Yangqiu Song, and Changshui Zhang. **Efficient Active Learning with Boosting**. SIAM International Conference on Data Mining (SDM). p. 1232–1243, 2009.

132. Zheng Wang, Yangqiu Song, and Changshui Zhang. **Knowledge Transfer on Hybrid Graph**. International Joint Conference on Artificial Intelligence (IJCAI). p. 1291–1296, 2009.

133. Jianwen Zhang, Yangqiu Song, Gang Chen, and Changshui Zhang. **On-line Evolutionary Exponential Family Mixture**. International Joint Conference on Artificial Intelligence (IJCAI). p. 1610–1615, 2009.

134. Shouchun Chen, Fei Wang, Yangqiu Song and Changshui Zhang. **Semi-supervised Ranking Aggregation**. ACM Conference on Information and Knowledge Management (CIKM). p. 1427–1428, 2008.

135. Yangqiu Song, Wen-Yen Chen, Hongjie Bai, Chih-Jen Lin, and Edward Chang. **Parallel Spectral Clustering**. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD). p. 374–389, 2008.

136. Zheng Wang, Yangqiu Song, and Changshui Zhang. **Transferred Discriminant Analysis**. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD). p. 550–565, 2008.

137. Gang Chen, <u>Yangqiu Song</u>, Fei Wang, and Changshui Zhang. **Semi-Supervised Multi-label Learning by Solving a Sylvester Equation**. SIAM Conference on Data Mining (SDM). p. 410–419, 2008.

138. Bin Zhao, Fei Wang, Changshui Zhang, and <u>Yangqiu Song</u>. **Active Model Selection in Graph-Based Semi-Supervised Learning**. International Conference on Acoustics, Speech, and Signal Processing (ICASSP). p. 1881–1884, 2008.

139. Qutang Cai, <u>Yangqiu Song</u>, and Changshui Zhang. **Cost Sensitive Boosting Algorithms as Gradient Descent**. International Conference on Acoustics, Speech, and Signal Processing (ICASSP). p. 2009–2012, 2008.

140. Bin Zhang, <u>Yangqiu Song</u>, Wenjun Yin, Ming Xie, Jin Dong, and Changshui Zhang. **Semi-Supervised Dimensionality Reduction for Image Retrieval**. SPIE Visual Communications and Image Processing (VCIP). p. 682225-9, 2008.

141. <u>Yangqiu Song</u>, Bin Zhang, Wenjun Yin, Changshui Zhang, and Jin Dong. **Ranking with Semi-Supervised Distance Metric Learning and Its Application to Housing Potential Estimation**. ACM Conference on Information and Knowledge Management (CIKM). 975–978, 2007.

142. Feiping Nie, Shiming Xiang, <u>Yangqiu Song</u>, and Changshui Zhang. **Extracting the Optimal Dimensionality for Discriminant Analysis**. International Conference on Acoustics, Speech, and Signal Processing (ICASSP). p. II 617–620, 2007.

143. <u>Yangqiu Song</u>, Changshui Zhang, and Shiming Xiang. **Semi-Supervised Music Genre Classification**. International Conference on Acoustics, Speech, and Signal Processing (ICASSP). p. II 729–732, 2007.

144. Dan Zhang, Zhenwei Shi, <u>Yangqiu Song</u>, and Changshui Zhang. **Localized Content-Based Image Retrieval using Semi-Supervised Multiple Instance Learning**. Asian Conference on Computer Vision (ACCV). p. 180–188, 2007.

145. Shiming Xiang, Feiping Nie, <u>Yangqiu Song</u>, Changshui Zhang, and Chunxia Zhang. **Embedding New Data Points for Manifold Learning via Coordinate Propagation**. Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD). p. 332–343, 2007. (**Best Paper Award–Honorable Mention**)

146. <u>Yangqiu Song</u> and Changshui Zhang. **New Boosting Methods of Gaussian Processes for Regression**. International Joint Conference on Neural Networks (IJCNN). p. 1142-1147, 2005.

Tutorials, Workshops, and Demos

1. Weiqi Wang, Baixuan Xu, Tianqing Fang, Lirong Zhang, <u>Yangqiu Song</u>. **KnowComp at SemEval-2023 Task 7: Fine-tuning Pre-trained Language Models for Clinical Trial Entailment Identification**. SemEval@ACL, 2023.

2. Hongming Zhang, Yintong Huo, Yanai Elazar, <u>Yangqiu Song</u>, Yoav Goldberg, Dan Roth. **CIKQA: Learning Commonsense Inference with a Unified Knowledge-in-the-loop QA Paradigm**. ACL Workshop on Commonsense Representation and Reasoning (CSRR), 2022.

3. Hongming Zhang, Yintong Huo, Xinran Zhao, <u>Yangqiu Song</u>, and Dan Roth. **Learning Contextual Causality from Time-consecutive Images**. CVPR Workshop on Causality in Vision, 2021.

4. Fei Wang, Peng Cui, Jian Pei, <u>Yangqiu Song</u>, Chengxi Zang: **Recent Advances on Graph Analytics and Its Applications in Healthcare**. KDD Tutorials, p. 3545–3546, 2020.

5. Hongming Zhang, Zhaoyu Liu, <u>Yangqiu Song</u>: **Capture Commonsense Knowledge for Sentiment Analysis**. BigComp workshop on Affective and Sentimental Computing (ASC), p. 767–770, 2018.

6. Yaopeng Liu, Hao Peng, Jie Guo, Tao He, Xiong Li, <u>Yangqiu Song</u>, and Jianxin Li. **Event Detection and Evolution Based on Knowledge Base**. WSDM workshop on KBCOM, 2018. (**Best Paper Honorable Mention Award**)

7. Yichun Yin, Yangqiu Song, and Ming Zhang. **NNEMBs at SemEval-2017 Task 4: Neural Twitter Sentiment Classification: a Simple Ensemble Method with Different Embeddings**. International Workshop on Semantic Evaluation (SemEval) at ACL. p. 621–625, 2017

8. Chen-Tse Tsai, Yangqiu Song, Stephen Mayhew, Mark Sammons, and Dan Roth. **Illinois CCG LoReHLT 2016 Named Entity Recognition and Situation Frame Systems**. LoReHLT. 2016.

9. Mark Sammons, Haoruo Peng, Yangqiu Song, Shyam Upadhyay, Chen-Tse Tsai, Pavankumar Reddy, Subhro Roy, and Dan Roth. **Illinois CCG TAC 2015 Event Nugget, Entity Discovery and Linking, and Slot Filler Validation Systems**. Text Analysis Conference (TAC). 2015. (Event nuggets: ranked 7th out of 14 teams; Event nuggets coref ranked 2nd out of 6 teams; Event nuggets overall: ranked 3rd out of 8 teams)

10. Yangqiu Song, Mark Sammons, Haoruo Peng, Parisa Kordjamshidi, and Dan Roth. **Improving a Pipeline Architecture for Shallow Discourse Parsing**. CoNLL Shared Task. p. 78–83. 2015. (Ranked 5th out of 17 teams)

11. Mark Sammons, Yangqiu Song, Ruichen Wang, Gourab Kundu, Chen-Tse Tsai, Shyam Upadhyay, Siddarth Ancha, Stephen Mayhew, and Dan Roth. **Overview of UI-CCG Systems for Event Argument Extraction, Entity Discovery and Linking, and Slot Filler Validation**. Text Analysis Conference (TAC). 2014. (Event trigger/argument overall: Ranked 5th out of 10 teams)

12. Erik Cambria, Yangqiu Song, Haixun Wang, and Amir Hussain. **Isanette: A Common and Common Sense Knowledge Base for Opinion Mining**. ICDM workshop on Data Mining Technologies for Computational Collective Intelligence (DMCCI). 2011.

13. Weihong Qian, Furu Wei, Yangqiu Song, Li Tan, Qiang Zhang, Xiaoxiao Lian, Lei Shi, Shixia Liu, Shimei Pan, and Michelle X. Zhou. Interactive Demo: Visually Analyzing Text Collections with Multiple Facets. IEEE VisWeek. 2010. (Demo)

14. Shixia Liu, Yangqiu Song, Furu Wei, Shimie Pan, Michelle X. Zhou, Weihong Qian, Lei Shi, Li Tan, and Qiang Zhang. **TIARA: Visually Analyzing Topic Evolution in Large Text Collections**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD). 2010. (Demo)

15. Gengxin Miao, Yangqiu Song, Dong Zhang, and Hongjie Bai. **Parallel Spectral Clustering Algorithm for Large-Scale Community Data Mining**. WWW workshop on Social Web Search and Mining (SWSM). 2008.

16. Dan Zhang, Yangqiu Song, Qifeng Qiao, Zhenwei Shi, and Changshui Zhang. **A Supervised Method to Chart Multiple Manifolds**. ACCV Workshop on Subspace. 2007.

17. Feiping Nie, Shiming Xiang, Yangqiu Song, and Changshui Zhang. **Optimal Dimensionality Discriminant Analysis and Its Application to Image Recognition**. CVPR Workshop on Component Analysis Methods for Classification, Clustering, Modeling and Estimation Problems in Computer Vision. p. 1–8, 2007.

18. Yangqiu Song, Changshui Zhang, Jianguo Lee, and Fei Wang. **A Discriminative Method For Semi-Automated Tumorous Tissues Segmentation of MR Brain Images**. CVPR Workshop on Mathematical Methods in Biomedical Image Analysis (MMBIA). p. 79. 2006.

19. Yangqiu Song, Changshui Zhang, and Jianguo Lee. **Graph Based Multi-Class Semi-Supervised Learning using Gaussian Process**. Joint IAPR International Workshop on Structural and Syntactic Pattern Recognition (SSPR) and Statistical Techniques in Pattern Recognition (SPR). p. 450–458, 2006.

Other Publications

1. Tao Han, Hailong Sun, Yangqiu Song, Yili Fang, Xudong Liu, and Jinpeng Huai. **Find Truth in the Hands of the Few: Acquiring Specific Knowledge with Crowdsourcing**, Frontiers of Computer Science, 15(4): 154315 (2021)

2. Yaopeng Liu, Hao Peng, Jianxin Li, <u>Yangqiu Song</u>, and Xion Li. **Event Detection and Evolution in Multi-lingual Social Streams**, Frontiers of Computer Science, 14(5): 145612, 2020.

3. Hongming Zhang and <u>Yangqiu Song</u>. **A Distributed Solution for Winograd Schema Challenge**. International Conference on Machine Learning and Computing (ICMLC), p. 322–326, 2018. (**Excellent Presentation Award**)

4. Liyaning Tang, Yiming Zhang, Fei Dai, Yoojung Yoon, and <u>Yangqiu Song</u>. **What Construction Topics Do They Discuss in Social Media? A Case Study of Weibo in China**. Construction Research Congress, 2018.

5. Liyaning Tang, Yiming Zhang, Fei Dai, Yoojung Yoon, and <u>Yangqiu Song</u>. **Sentiment analysis for the construction industry: A case study of Weibo in China**. Computing in Civil Engineering, 2017.

6. Liyaning Tang, Yiming Zhang, Fei Dai, Yoojung Yoon, <u>Yangqiu Song</u>, and Radhey S Sharma. **Social media data analytics for the US construction industry: Preliminary study on Twitter**. Journal of Management in Engineering, 2017.

7. Liyaning Tang, Yiming Zhang, Fei Dai, Yoojung Yoon, <u>Yangqiu Song</u>, and Radhey S Sharma. **Labor sentiment analysis for the construction industry: a case study of Twitter in the USA**. Proceedings of the International Conference on Construction Applications of Virtual Reality, 2016.

8. <u>Yangqiu Song</u>, Stephen Mayhew, and Dan Roth. **Cross-lingual Dataless Classification for Languages with Small Wikipedia Presence**. arXiv:1611.04122. 2016.

9. Yi Zhen, <u>Yangqiu Song</u>, and Dit-Yan Yeung. **Semiparametric Preference Learning**. Tsinghua Science and Technology. Vol. 19, No.3, p. 257–264, 2014. (Invited Paper)

10. Yingcai Wu, Weiwei Cui, <u>Yangqiu Song</u>, Yang Chen, and Shixia Liu. **A Survey on Topic-Based Visual Text Analytics**. Journal of Computer-Aided Design and Computer Graphics. Vol. 24, No. 10, 2012. (In Chinese)

11. Masumi Shirakawa, Haixun Wang, <u>Yangqiu Song</u>, Zhongyuan wang, Kotaro Nakayama, and Takahiro Hara. **Entity Disambiguation based on a Probabilistic Taxonomy**, Technique Report. MSR-TR-2011-125, November 2011.

12. <u>Yangqiu Song</u>, Jianguo Lee, Changshui Zhang, and Shiming Xiang. **Semi-Supervised Gaussian Random Field Transduction and Induction**. Frontiers of Electrical and Electronic Engineering in China (Selected Publications from Chinese Universities). Vol. 3, No. 1, p. 1–9, 2008. (Invited Paper)

13. <u>Yangqiu Song</u>, Qutang Cai, Feiping Nie, and Changshui Zhang. **Semi-Supervised Additive Logistic Regression: A Gradient Descent Solution**. Tsinghua Science and Technology. Vol. 12, No. 6, p. 638–646, 2007. (Invited Paper)

Patents

1. <u>Yangqiu Song</u>, Haoran Li. **Method and Server for Defending Service from Personal Privacy Inference Attack**. US20230153460A1 (Filed 2022-11-11)

2. <u>Yangqiu Song</u>, Haoran Li, Ying Su, Qi Hu, Jiaxin Bai, Yilun Jin. **Dialog Agents with Two-sided Modeling**. US20230050655A1 (Filed 2022-07-15)

3. Hongming Zhang, Xin Liu, Haojie Pan, Yangqiu Song. **Knowledge Graph (KG) Construction Method for Eventuality Prediction and Eventuality Prediction Method**. US20220309357A1 (Filed 2019-09-26)

4. Zhuolin Jiang, <u>Yangqiu Song</u>, and Qiang Yang. **Method for Recognizing Target Object in Image, and Apparatus**. US20160307070A1 (Filed 2016-06-27)

5. Qiang Yang, <u>Yangqiu Song</u>, and Xiuqiang He. **Method and System for Processing Lifelong Learning of Terminal and Apparatus**. US10078509B2 (Filed 2016-06-14, Granted 2018-09-18).

6. Qiang Yang, <u>Yangqiu Song</u>, Wingki Leung, and Zhengdong Lv. **Method for processing information by intelligent agent and intelligent agent**. US20220172121A1 (Filed 2021-12-13).

7. <u>Yangqiu Song</u>, Shixia Liu, Haixun Wang, Zhongyuan Wang, and Hongsong Li. **Automatic Taxonomy Construction From Keywords**. US9501569B2 (Filed on 2013-04-23, Granted 2016-11-22).

8. Shixia Liu, Shimei Pan, Wei Hong Qian, <u>Yangqiu Song</u>, Fei Wang, and Michelle X. Zhou. **Temporal topic segmentation and keyword selection for text visualization**. US9195635B2 (File on 2013-03-11, Granted 2015-11-24).

9. Weijia Cai, Xiaoxiao Lian, Shixia Liu, Shimei Pan, Weihong Qian, <u>Yangqiu Song</u>, Qiang Zhang, and Michelle Xue Zhou, **Producing a visual summarization of text documents**. US8245135B2; (Filed on 2009-09-08).

GRANT EXPERIENCES

1. PI: Hong Kong RGC.

   - Learning to Answer Complex Knowledge Graph Queries. General Research Fund (GRF) 2022/23, Project No. 16205322, HK$1,018,556, 2023-2025.
   - Higher-order Selectional Preference Inference for Commonsense Knowledge Acquisition. General Research Fund (GRF) 2020/21, Project No. 16211520, HK$602,349, 2020-2023.
   - sActivityGraph: A Social Media-Based Activity Knowledge Graph for Discourse Analysis. Early Career Scheme (ECS) 2017/18, Project No. 26206717, HK$725,500, 2018-2020.

2. PI: Hong Kong ITC.

   - Key Technologies for an Intelligent Legal Assistant for Resolution of Diverse Disputes. Mainland-Hong Kong Joint Funding Scheme (MHKJFS) 2021, Project No. MHP/001/19, HK$971,700 (Hong Kong Part) and RMB2,000,000 (Mainland Part), 2021-2023.

3. Co-PI: Hong Kong RGC.

   - Enabling Secure and Efficient Cross-Silo Federated Learning at Scale. Research Impact Fund (RIF No. R6021-20) 2020/21, HK$5,720,000, 2021-2026 (Five Years).
   - Product-Oriented Knowledge Base Construction. Research Impact Fund (RIF No. R6020-19) 2019/20, HK$5,600,000, 2020-2024 (Four Years).

4. Co-PI: NSFC.

   - Technologies of Fusion Perception and Collaborative Processing for Behavior Big Data in Cyberspace (NSFC U20B2053), RMB650,000 out of RMB2,5700,000, 2021.01-2024.12.

5. PI: HKUST-WeBank Lab.

   - Federated Recommendation System, 2020-2021: HK$150£¬000 out of HK$600,000, 2020-2021.
   - Innovative, Interactive, and Collaborative Online Advertising: HK$142,826 out of HK$571,304, 2019-2020.

6. PI: Huawei Gift Fund.

   - Neural Network Learning and Symbolic Reasoning over Commonsense Knowledge Graphs. HK$968,000, 2020-2021.

7. PI: Tencent AI Lab Gift Fund.

   - On the Role of Entailment in Commonsense Reasoning: HK$350,000, 2022-2023.

- Dialogue Discourse Analysis by Grounding to a Commonsense Knowledge Graph: HK$387,350, 2020-2021.
- Enhanced Coreference Resolution in Dialogues by Incorporating Knowledge: HK$350,000, 2019-2020.

8. PI: HKUST Research Equipment Competition (REC) Grant

- Single PI: HK$120,000, Total HK$1,158,003, 2019-2020.
- Co-PI: HK$232,780, 2016-2017.

9. PI: HKUST-WeChat Joint Lab.

- Entity Typing and Multi-task Learning£ᵒ HK$441,260, 2019-2020.
- Entity Typing and Recommendation: HK$391,920, 2018-2019.
- Opinion leader mining: HK$188,000, 2017-2018.
- Opinion leader mining: HK$162,000, 2016-2017.

10. PI: Intel Gift Fund. Social Media-based Aspect Mining and Heterogeneous Recommendation, US$26,075, 2018-2019.

11. PI: WeBank Gift Fund. Knowledge Graph based Feed Recommendation. RMB500,000, 2018-2019.

12. PI: HKUST Initiation Grant (IGN16EG01), HK$100,000, 2016-2017.

13. Co-PI: DARPA's Low Resource Languages for Emergent Incidents (LORELEI) program. Sub-award from UIUC, HK$242,133, 2016-2018.

14. Co-PI: WVU NT-NS Pilot Grant Award. Using social media to study opioid addiction: perception, pattern and acceptance. US$21,860, 2016-2017.

Honors and Awards

2021	Recognition of Excellent Teaching Performance (RMBI4310 in Spring 2020/21).
2021	ACBC 2021 Outstanding Paper Award.
2021	IEEE VIS 2021 Best Paper Award–Honorable Mention.
2017-2018	"The Teachers I Like" Nominated by Outstanding Students (CGA>=3.85).
2018	Grand Prize for Best Paper Award in Yelp Dataset Challenge - Round 10.
2017	KDD 2017 Best Data Science Track Paper Award.
2015	IUI 2015 Best Paper Award–Honorable Mention.
2014	One of the nine selected KDD 2014 papers for TKDD publication.
2007	PAKDD 2007: Best Paper Award–Honorable Mention.

Academic Services

Journal Associate Editor
- IEEE Data Engineering Bulletin (2022-2023)

Journal Editorial Board
- Journal of Artificial Intelligence Research (2016.07-Present)
- Transactions of the Association for Computational Linguistics, Standing Reviewer (2020.04-Present)

Journal Guest Editor
- ACM Transactions on Intelligent Systems and Technology (TIST) Special Issue on "Federated Learning: Algorithms, Systems, and Applications"

• IEEE Transaction on Big Data Special Issue on "Knowledge Graphs: Techniques and Applications"
• ACM Transactions on Interactive Intelligent Systems (TIIS) Special Issue on "Modeling User Trait and Behavior with Machine Learning"

Conference and Workshop Chairs
• ACL Rolling Review (ARR) April 2023, Area Chair: Annual meeting of the Association for Computational Linguistics (EMNLP'23)
• ACL Rolling Review (ARR) October 2022, Area Chair: Annual meeting of the Association for Computational Linguistics (ACL'23)
• ACL Rolling Review (ARR) June 2022, Area Chair: Conference on Empirical Methods in Natural Language Processing (EMNLP'22)
• Area Chair of Information Extraction Track and Commonsense Reasoning Track: Conference on Empirical Methods in Natural Language Processing (EMNLP'22)
• ACL Rolling Review (ARR) February 2022, Action Editor: Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'22)
• ACL Rolling Review (ARR) January 2022, Area Chair: Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'22)
• Track Chair of Knowledge Graph for NLP Track: IEEE International Conference on Big Knowledge (ICBK'21)
• Area Chair of Information Extraction Track: Conference on Empirical Methods in Natural Language Processing (EMNLP'21)
• Area Chair of Information Extraction Track: Annual meeting of the Association for Computational Linguistics (ACL-IJCNLP'21)
• Area Chair of Semantics: Sentence-level Semantics and Textual Inference Track: Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT'21)
• Area Chair: International Joint Conference on Artificial Intelligence (IJCAI'21)
• Area Chair of Information Extraction Track: Conference on Empirical Methods in Natural Language Processing (EMNLP'20)
• Area Chair of Information Retrieval and Text Mining Track: Annual meeting of the Association for Computational Linguistics (ACL'20)
• Area Chair of Knowledge Graphs Track: Conference on Natural Language Processing and Chinese Computing (NLPCC'19)
• Local Co-chair: International Joint Conference on Artificial Intelligence (IJCAI'19)
• Area Chair of Machine Learning Track: Conference on Natural Language Processing and Chinese Computing (NLPCC'17)

Senior Program Committee
• ACM Conference on Information and Knowledge Management (CIKM'19,21-23)
• ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Data Science Track (KDD'21-22)
• AAAI Conference on Artificial Intelligence (AAAI'18,20,21,22)
• International Joint Conference on Artificial Intelligence (IJCAI'15)

Program Committee
• ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Research Track (KDD'13-21)
• Neural Information Processing Systems (NeurIPS'15-18,20)
• International Conference on Computational Linguistics (COLING'14,18,20)
• International Joint Conference on Artificial Intelligence (IJCAI'13,16,19,20)
• Conference on Empirical Methods in Natural Language Processing (EMNLP'18-19)
• Joint Conference on Lexical and Computational Semantics (*SEM'17,19)
• Annual meeting of the Association for Computational Linguistics (ACL'13,17-19)
• IEEE International Conference on Data Mining (ICDM'14-16,18)
• ACM Conference on Information and Knowledge Management (CIKM'14,17-18)
• European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD'11,14-18)

- International Conference on Machine Learning (ICML'15,18)
- WSDM Workshop on Knowledge Base Construction, Reasoning and Mining (KBCOM'18)
- AAAI Conference on Artificial Intelligence (AAAI'15-17)
- International Conference on Database Systems for Advanced Applications (DASFAA'17)
- SIAM International Conference on Data Mining (SDM'15-17)
- International Conference on Machine Learning and Applications (ICMLA'07-15)
- IEEE International Conference on Data Science and Advanced Analytics (IEEE DSAA'15)
- International Conference on Tools with Artificial Intelligence (ICTAI'11-12,14-15)
- Asian Conference on Machine Learning (ACML'13-15)
- International Conference on Big Data and Smart Computing (BigComp'15)
- IEEE Symposium on Computational Intelligence and Data Mining (CIDM'13-14)
- SIGIR 2014 Workshop on Semantic Matching in Information Retrieval (SMIR'14)
- ACM International Conference on Web Search and Data Mining (WSDM'14)
- IEEE Conference on Computational Science and Engineering (IEEE-CSE'12-13)
- ACM Recommender System conference (RecSys'13)
- RecSys'13 Workshop on Large-Scale Recommender Systems (LSRS'13)
- International Conference on Intelligent User Interfaces (IUI'13)
- IPDPS Workshop on Parallel and Distributed Computing for Large Scale Learning and Inference (ParLearning'12-13)
- ICDM Workshop on Large Scale Visual Analytics (LSVA'11)
- ICDM Workshop on Optimization Based Methods for Emerging Data Mining Problems (OEDM'09-11)
- ACM Multimedia Workshop on Social and Behavioral Networked Media Access (SBNMA'11)

Conference and Workshop Reviewer
- IEEE Conference on Visual Analytics Science and Technology (VAST'14)
- IEEE International Conference on Data Mining (ICDM'13)
- International World Wide Web Conference (WWW'13)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'11-12)
- IEEE International Conference on Data Engineering (ICDE'12)
- SIAM Data Mining Conference (SDM'11)
- Very Large Data Bases (VLDB'08)
- Asian Conference on Computer Vision (ACCV'07)
- International Conference on Biometrics (ICB'06)
- European Conference on Computer Vision (ECCV'06)
- ICPR Workshop (SSPR and SPR'06)
- International Conference of Pattern Recognition (ICPR'06)
- International Conference on Computer Vision (ICCV'05)
- International Conference on Computer Vision and Pattern Recognition (CVPR'05)

University Services

University Level
- Search and Appointments Committee, Division of Emerging Interdisciplinary Areas, 2023-2024
- Search and Appointments Committee, AI Thrust, Guangzhou Campus, 2020-2023
- Target Of Opportunity Faculty Hiring Committee (TOOC) of HKUST (GZ) led by Prof. Yang Wang (Office of the Vice-President for Institutional Advancement), 2020

Department level • DSCT Join Program Committee Associate Director/Chair, 2021-2024
- Post-graduate Program Coordinator, Department of CSE, 2023-2024
- Search and Appointments Committee, Department of CSE, 2022-2023
- UG Committee Member, 2021-2024
- FYP/FYT Committee, 2020-2021
- DSCT Join Program Committee, 2019-2021

- Advisors of First Year Students, 2020-2021
- FYP/FYT Committee, 2019-2020
- Advisors of First Year Students, 2019-2020
- Advisors of First Year Students, 2018-2019

Start-up Service
- Associate director of WeChat-HKUST Joint Lab on Artificial Intelligence Technology (2018-2021)
- Associate director for the HKUST-WeBank Joint Lab (2018-present)
- Founding faculty member for the Guangzhou Campus in AI Thrust, 2021