Research Publications - Data Mining Research Group at CS, UIUC

2019

1. Qi Zhu, Xiang Ren, Jingbo Shang, Yu Zhang, Ahmed El-Kishky and Jiawei Han, "Integrating Local Context and Global Cohesiveness for Open Information Extraction", in Proc. 2019 ACM Int. Conf. on Web Search and Data Mining (WSDM’19), Melbourne, Australia, Feb. 2019
2. Jiaming Shen, Ruiliang Lyu, Xiang Ren, Michelle Vanni, Brian Sadler, Jiawei Han, "Mining Entity Synonyms with Efficient Neural Set Generation", in Proc. 2019 AAAI Conf. on Artificial Intelligence (AAAI-19), Honolulu, Hawaii, Jan. 2019
3. Yu Meng, Jiaming Shen, Chao Zhang and Jiawei Han, "Weakly-Supervised Hierarchical Text Classification", in Proc. 2019 AAAI Conf. on Artificial Intelligence (AAAI-19), Honolulu, Hawaii, Jan. 2019
4. Xuan Wang, Yu Zhang, Xiang Ren, Yuhao Zhang, Marinka Zitnik, Jingbo Shang, Curtis Langlotz, and Jiawei Han, "Cross-type Biomedical Named Entity Recognition with Deep Multi-Task Learning", Bioinformatics (accepted), Oct. 2018 (to appear 2019)

2018

1. Xiang Ren and Jiawei Han, Mining Structures of Factual Knowledge from Text: An Effort-Light Approach, Morgan & Claypool Publishers, 2018. (Ren’s thesis: 2018 ACM SIGKDD Dissertation Award)
2. Jingbo Shang, Jialiu Liu, Meng Jiang, Xiang Ren, Clare R Voss, Jiawei Han, "Automated Phrase Mining from Massive Text Corpora", IEEE Transactions on Knowledge and Data Engineering, 30(10):1825-1837 (2018)
3. Jingbo Shang, Meng Jiang, Wenzhu Tong, Jinfeng Xiao, Jian Peng, Jiawei Han. "DPPred: An Effective Prediction Framework with Concise Discriminative Patterns", IEEE Transactions on Knowledge and Data Engineering, 30(7): 1226-1239 (2018)
4. Chenguang Wang, Yangqiu Song, Haoan Li, Ming Zhang, Jiawei Han, "Unsupervised meta-path selection for text similarity measure based on heterogeneous information networks", Data Mining and Knowledge Discovery, 32(6): 1735-1767 (2018)
5. Chao Zhang, Dongming Lei, Quan Yuan, Honglei Zhuang, Lance M. Kaplan, Shaowen Wang, Jiawei Han, "GeoBurst+: Effective and Real-Time Local Event Detection in Geo-Tagged Tweet Streams", ACM Transactions on Intelligent Systems and Technology (TIST) 9 (3): 34:1-24 (2018)
6. Wei Shen, Jiawei Han, Jianyong Wang, Xiaojie Yuan, Zhenglu Yang, "SHINE+: A General Framework for Domain-Specific Entity Linking with Heterogeneous Information Networks", IEEE Transactions on Knowledge and Data Engineering, 30(2):353-366 (2018)
7. Xuan Wang, Yu Zhang, Qi Li, Cathy Wu, and Jiawei Han, "PENNER: Pattern-enhanced Nested Named Entity Recognition in Biomedical Literature", Proc. 2018 Int. Conf. on Bioinformatics and Biomedicine (BIBM’18), Madrid, Spain, Dec. 2018
8. Qi Li, Xuan Wang, Yu Zhang, Fei Ling, Cathy Wu, and Jiawei Han, "Pattern Discovery for Wide-Window Open Information Extraction in Biomedical Literature", Proc. 2018 Int. Conf. on Bioinformatics and Biomedicine (BIBM’18), Madrid, Spain, Dec. 2018
9. Shi Zhi, Fan Yang, Zheyi Zhu, Qi Li, Zhaoran Wang, and Jiawei Han, "Dynamic Truth Discovery on Numerical Data", in Proc of 2018 IEEE Int. Conf. on Data Mining (ICDM’18), Singapore, Nov. 2018
10. Carl Yang, Yichen Feng, Pan Li, Yu Shi, and Jiawei Han, "Meta-Graph Based HIN Spectral Embedding: Methods, Analyses, and Insights", in Proc of 2018 IEEE Int. Conf. on Data Mining (ICDM’18), Singapore, Nov. 2018
11. Fangbo Tao, Chao Zhang, Xiuxi Chen, Meng Jiang, Tim Hanratty, Lance Kaplan, and Jiawei Han, "Doc2Cube: Automated Document Allocation to Text Cube via Dimension-Aware Joint Embedding", in Proc of 2018 IEEE Int. Conf. on Data Mining (ICDM’18), Singapore, Nov. 2018
12. Doris Xin, Ahmed El-Kishky, De Liao, Brandon Norick, and Jiawei Han, "Active Learning on Heterogeneous Information Networks: A Multi-armed Bandit Approach", in Proc of 2018 IEEE Int. Conf. on Data Mining (ICDM’18), Singapore, Nov. 2018
13. Jingbo Shang, Liyuan Liu, Xiaotao Gu, Xiang Ren, Teng Ren and Jiawei Han, "Learning Named Entity Tagger using Domain-Specific Dictionary", in Proc of 2018 Conf. on Empirical Methods in Natural Language Processing (EMNLP’18), Brussels, Belgium, Oct. 2018
14. Liyuan Liu, Xiang Ren, Jingbo Shang, Xiaotao Gu, Jian Peng and Jiawei Han, "Efficient Contextualized Representation: Language Model Pruning for Sequence Labeling", in Proc of 2018 Conf. on Empirical Methods in Natural Language Processing (EMNLP’18), Brussels, Belgium, Oct. 2018
15. Quan Yuan, Xiang Ren, Wenyi He, Chao Zhang, Xinhe Geng, Lifu Huang, Heng Ji, Chin-Yew Lin and Jiawei Han, "Open-Schema Event Profiling for Massive News Corpora", in Proc. of 2018 ACM Int. Conf. on Information and Knowledge Management (CIKM’18), Turin, Italy, Oct. 2018
16. Yu Meng, Jiaming Shen, Chao Zhang and Jiawei Han, "Weakly-Supervised Neural Text Classification", in Proc. of 2018 ACM Int. Conf. on Information and Knowledge Management (CIKM’18), Turin, Italy, Oct. 2018
17. Jingbo Shang, Jiaming Shen, Tianhang Sun, Xingbang Liu, Anja Gruenheid, Flip Korn, Adam Lelkes, Cong Yu and Jiawei Han, "Investigating Rumor News Using Agreement-Aware Search", in Proc of 2018 ACM Int. Conf. on Information and Knowledge Management (CIKM’18), Turin, Italy, Oct. 2018
18. Carl Yang, Mengxiong Liu, Frank He, Xikun Zhang, Jian Peng, and Jiawei Han, "Similarity Modeling on Heterogeneous Networks via Automatic Path Discovery", in Proc of 2018 European Conf. on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECMLPKDD’18), Dublin, Ireland, Sept. 2018
19. Carl Yang, Mengxiong Liu, Vincent W. Zheng and Jiawei Han, "Node, Motif and Subgraph: Leveraging Network Functional Blocks Through Structural Convolution", in Proc of 2018 IEEE/ACM Int. Conf. on Social Networks Analysis and Mining (ASONAM’18), Barcelona, Spain, Aug. 2018
20. Xuan Wang, Yu Zhang, Qi Li, Yinyin Chen and Jiawei Han, "Open Information Extraction with Meta-pattern Discovery in Biomedical Literature", in Proc of 2018 ACM Conf. on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB’18), Washington, DC, August 2018
21. Jingbo Shang, Chao Zhang, Jiaming Shen, Jiawei Han, "Towards Multidimensional Analysis of Text Corpora", Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (Conference Tutorial), London, UK, Aug. 2018
22. Jingbo Shang, Qi Zhu, Jiaming Shen, Xuan Wang, Xiaotao Gu, Lance Kaplan, Timothy Harratty and Jiawei Han, "AutoNet: Automated Network Construction and Exploration System from Domain-Specific Corpora", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (demo paper), London, UK, August 2018
23. Jiaming Shen, Jinfeng Xiao, Yu Zhang, Carl Yang, Jingbo Shang, Jinda Han, Saurabh Sinha, Peipei Ping, Richard Weinshilboum, Zhiyong Lu and Jiawei Han, "SetSearch+: Entity-Set-Aware Search and Mining for Scientific Literature", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (demo paper), London, UK, August 2018
24. Hanwen Zha, Shaojing Zhang, Jiawei Han, and Jiawei Han, "ITAG: Inter-Task-Augmented Grouping for Entity Categorization", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (demo paper), London, UK, August 2018
25. Carl Yang, Xiaolin Shi, Jie Luo and Jiawei Han, "I Know You’ll Be Back: Interpretable New User Clustering and Churn Prediction on a Mobile Social Application", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018
26. Chao Zhang, Fangbo Tao, Xiuxi Chen, Jiaming Shen, Meng Jiang, Brian Sadler, Michelle Vanni and Jiawei Han, "TaxoGen: Constructing Topical Concept Taxonomy by Adaptive Term Embedding and Clustering", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018
27. Qi Li, Meng Jiang, Xikun Zheng, Meng Qu, Timothy Harratty, Jing Gao and Jiawei Han, "TruePIE: Discovering Reliable Patterns in Pattern-Based Information Extraction", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018
28. Jiaming Shen, Zeqiu Wu, Dongming Lei, Chao Zhang, Xiang Ren, Michelle T. Vanni, Brian M. Sadler and Jiawei Han, "HiExpan: Task-Guided Taxonomy Construction by Hierarchical Tree Expansion", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018
29. Yu Shi, Qi Zhu, Fang Guo, Chao Zhang and Jiawei Han, "Easing Embedding Learning by Comprehensive Transcription of Heterogeneous Information Networks", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018
30. Yuchen Li, Zhenghi Lou, Yu Shi and Jiawei Han, "Temporal Motifs in Heterogeneous Information Networks", in Proc. of 2018 Int. Workshop on Mining and Learning with Graphs (MLG'18), co-located with KDD'18, London, UK, August 2018
31. Yuning Mao, Xiang Ren, Jiaming Shen, Xiaotao Gu and Jiawei Han, "End-to-End Reinforcement Learning for Automatic Taxonomy Induction", in Proc. of 2016 Annual Meeting of the Association for Computational Linguistics (ACL'16), Melbourne, Australia, July 2016
32. Jiaming Shen, Jinfeng Xiao, Xinwei He, Jingbo Shang, Saurabh Sinha and Jiawei Han, "Entity Set Search of Scientific Literature: An Unsupervised Ranking Approach", in Proc. of 2018 Int. ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR'18), Ann Arbor, MI, July 2018
33. Ahmed El-Kishky, Frank Xu, Aston Zhang, Stephen Macke and Jiawei Han, "Entropy-Based Subword Mining for Word Embeddings", in Proc. of the 2nd Workshop on Subword and Character Level Models in NLP (SCL4E'18) (at NAACL 2018), New Orleans, LA, June 2018
34. Yu Shi, Huan Gui, Qi Zhu, Lance Kaplan, Jiawei Han, "AspEm: Embedding Learning by Aspects in Heterogeneous Information Networks", in Proc. of 2018 SIAM Int. Conf. on Data Mining (SDM'18), San Diego, CA, May 2018
35. Meng Qu, Xiang Ren, Yu Zhang, and Jiawei Han, "Weakly-supervised Relation Extraction by Pattern-enhanced Embedding Learning", in Proc. of 2018 Int. Conf. on World-Wide Web (WWW'18), Lyon, France, Apr. 2018
36. Qi Zhu, Xiang Ren, Jingbo Shang, Yu Zhang, Frank F. Xu and Jiawei Han, "Open Information Extraction with Global Structure Constraints", (poster paper), Proc. of 2018 Int. Conf. on World-Wide Web (WWW'18), Lyon, France, Apr. 2018 (received WWW'18 best poster award honorable mentioning)
37. Carl Yang, Chao Zhang, Jiawei Han, Xuewen Chen, Jieping Ye, "Did You Enjoy the Ride: Understanding Passenger Experience via Networked Embedded Mobility", Proc. of 2018 IEEE International Conference on Data Engineering, Paris, France, April 2018
38. Lijuan Liu, Jingbo Shang, Frank Xu, Xiang Ren, Huan Gui, Jian Peng and Jiawei Han, "Empower Sequence Labeling with Task-Aware Neural Language Model", in Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAAI'18), New Orleans, LA, Feb. 2018
39. Chao Zhang, Mengxiong Liu, Zhengchao Liu, Carl Yang, Luming Zhang, Jiawei Han, "Spatiotemporal Activity Modeling Under Data Scarcity: A Graph-Regularized Cross-Modal Embedding Approach", in Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAAI'18), New Orleans, LA, Feb. 2018
40. Wanzheng Zhu, Chao Zhang, Shuchao Yao, Xiaobin Gao, Jiawei Han, "A Spherical Hidden Markov Model for Semantics-Rich Human Mobility Modeling", in Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAAI'18), New Orleans, LA, Feb. 2018
41. Zeqiu Wu, Xiang Ren, Frank F. Xu, Ji Li and Jiawei Han, "Indirect Supervision for Relation Extraction using Question-Answer Pairs", in Proc. of 2018 ACM Int. Conf. on Web Search and Data Mining (WSDM'18), Los Angeles, CA, Feb. 2018
42. Meng Qu, Jian Tang, and Jiawei Han, "Curriculum Learning for Heterogeneous Star Network Embedding via Deep Reinforcement Learning", in Proc. of 2018 ACM Int. Conf. on Web Search and Data Mining (WSDM'18), Los Angeles, CA, Feb. 2018
43. Jiawei Han, "On the Power of Massive Text Data", (keynote speech), in Proc. of 2018 ACM Int. Conf. on Web Search and Data Mining (WSDM'18), Los Angeles, CA, Feb. 2018

2017

1. Adit Krishnan, Aravind Sankar, Shi Zhi, Jiawei Han, "Unsupervised Concept Categorization and Extraction from Scientific Document Titles", in Proc. of 2017 ACM Int. Conf. on Information and Knowledge Management (CIKM'17), Singapore, Nov. 2017
2. Meng Qu, Jian Tang, Jingbo Shang, Xiang Ren, Ming Zhang, Jiawei Han, "An Attention-based Collaboration Framework for Multi-View Network Representation Learning", in Proc. of 2017 ACM Int. Conf. on Information and Knowledge Management (CIKM'17), Singapore, Nov. 2017
3. Chenguang Wang, Yangqiu Song, Haoran Li, Yizhou Sun, Ming Zhang, Jiawei Han, "Second-Order Heterogeneous Information Network Similarity for Text", in Proc. of 2017 ACM Int. Conf. on Information and Knowledge Management (CIKM'17), Singapore, Nov. 2017
4. Quan Yuan, Jingbo Shang, Xin Cao, Chao Zhang, Xinhe Geng, Jiawei Han, "Detecting Multiple Periods and Periodic Patterns in Event Time Sequences", in Proc. of 2017 ACM Int. Conf. on Information and Knowledge Management (CIKM'17), Singapore, Nov. 2017
1. Huan Gui, Jialu Liu, Fangbo Tao, Meng Jiang, Brandon T. Norick, and Jiawei Han, "Large-Scale Embedding Learning in Heterogeneous Event Data", in Proc. of 2016 Int. Conf. on Data Mining (ICDM’16), Barcelona, Spain, Dec. 2016.

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31. Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang and Jiawei Han, "Text Classification with Heterogeneous Information Network Kernels", in Proc. of 2016 AAAI Conf. on Artificial Intelligence (AAAI’16), Phoenix, AZ, Feb. 2016.

32. Min Li, Jingjing Wang, Wenzhu Tong, Hongkun Yu, Xiuli Ma, Yucheng Chen, Haoyan Cai, Jiawei Han, "EKNOT: Event Knowledge from News and Opinions in Twitter", Proc. of AAAI Conf. on Artificial Intelligence (AAAI’16) (system demo), Phoenix, AZ, Feb. 2016.

33. Jingjing Wang, Min Li, Jiawei Han, and Xiaolong Wang, "Modeling Check-in Preferences with Multidimensional Knowledge: A Minimax Entropy Approach", in Proc. of 2016 Int. Conf. on Web Search and Data Mining (WSDM’16), San Francisco, CA, Feb. 2016.

34. Latifur Khan "Recurring and Novel Class Detection using Class-Based Ensemble for Evolving Data Stream", IEEE Transactions on Knowledge and Data Engineering, 28(10), 2016.

35. Yaliang Li, Qi Li, Jing Gao, Lu Su, Bo Zhao, Wei Fan, Jiawei Han, "Conflicts to Harmony: A Framework for Resolving Conflicts in Heterogeneous Data by Truth Discovery", IEEE Transactions on Knowledge and Data Engineering (TKDE), 28(8): 1986-1999 (2016).

36. Jun Li, Jingjing Wang, Junfei Zhang, Qiming Qin, Tanvi Jindal, Jiawei Han, "A probabilistic approach to detect mixed periodic patterns from moving object data", Geoinformatica, 2016.


38. Jinfeng Xiao, Sheng Wang, Jingbo Zhang, Henery Lin, Doris Xin, Xiang Ren, Jiawei Han, and Jian Peng, "DWCox: A density-weighted Cox model for outlier-robust prediction of prostate cancer survival", F1000 Research, 2016.

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2015

1. Jingjing Wang, Wenzhu Tong, Hongkun Yu, Min Li, Xiuli Ma, Haoyan Cai, Tim Hanratty, and Jiawei Han, "Mining Multi-Aspects of News Events in Twitter: Discovery, Linking and Presentation", in Proc. of 2015 IEEE Int. Conf. on Data Mining (ICDM’15), Atlantic City, NJ, Nov. 2015.

2. Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang and Jiawei Han, "KnowSim: A Document Similarity Measure on Structured Heterogeneous Information Networks", in Proc. of 2015 IEEE Int. Conf. on Data Mining (ICDM’15), Atlantic City, NJ, Nov. 2015.

3. Ahmed El-Kishky, Yanglei Song, Chi Wang, Clare R. Voss, and Jiawei Han, "Scalable Topical Phrase Mining from Text Corpora", PVLDB 8(3): 305 - 316, 2015. Also, in Proc. 2015 Int. Conf. on Very Large Data Bases (VLDB’15), Kohala Coast, Hawaii, Sept. 2015.

4. Qi Li, Yaliang Li, Jing Gao, Lu Su, Bo Zhao, Murat Demirbas, Wei Fan, and Jiawei Han, "A Confidence-Aware Approach for Truth Discovery on Long-Tail Data", PVLDB 8(4): 425-436, 2015 Also, in Proc. 2015 Int. Conf. on Very Large Data Bases (VLDB’15), Kohala Coast, Hawaii, Sept. 2015.

5. Jing Gao, Qi Li, Bo Zhao, Wei Fan, and Jiawei Han, "Truth Discovery and Crowdsourcing Aggregation: A Unified Perspective", PVLDB 8(12): 2048-2059 (2015). Also, in Proc. 2015 Int. Conf. on Very Large Data Bases (VLDB’15) (conference tutorial), Kohala Coast, Hawaii, Sept. 2015.

6. Shi Zhi, Jiawei Han, and Quanquan Gu, "Robust Classification of Information Networks by Consistent Graph Learning", in Proc. of 2015 European Conf. on Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECMLPKDD’15), Porto, September, 2015.

7. Chao Zhang, Shan Jiang, Yucheng Chen, Yidan Sun, and Jiawei Han, "Fast Inbound Top-K Query for Random Walk with Restart", in Proc. of 2015 European Conf. on Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECMLPKDD’15), Porto, Portugal, Sept. 2015.

8. Chao Zhang, Yu Zheng, Xiuli Ma, Jiawei Han, "Assembler: Efficient Discovery of Spatial Coevolving Patterns in Massive Geosensory Data", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

9. Xiang Ren, Ahmed El-Kishky, Chi Wang, Fangbo Tao, Clare R. Voss, Heng Ji, Jiawei Han, "ClusType: Effective Entity Recognition and Typing by Relation Phrase-Based Clustering", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

10. Fenglong Ma, Yaliang Li, Qi Li, Minghui Qiu, Jing Gao, Shi Zhi, Lu Su, Bo Zhao, Heng Ji, and Jiawei Han, "FaultCrowd: Fine Grained Truth Discovery for Crowdsourced Data Aggregation", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015

11. Chi Wang, Xueqin Liu, Yanglei Song, Jiawei Han, "Towards Interactive Construction of Topical Hierarchy: A Recursive Tensor Decomposition Approach", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

12. Yaliang Li, Qi Li, Jing Gao, Lu Su, Bo Zhao, Wei Fan, and Jiawei Han, "On the Discovery of Evolving Truth", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

13. Shi Zhi, Bo Zhao, Wenzhu Tong, Jing Gao, Dian Yu, Heng Ji, and Jiawei Han, "Modeling Truth Existence in Truth Discovery", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

14. Younghoon Kim, Jiawei Han, Gangzhou Yuan, "TOPTRA: Topical Trajectory Pattern Mining", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

15. Chenguang Wang, Yangqiu Song, Jiangang Wang, Yangqiu Song, Ahmed El-Kishky, Dan Roth, Ming Zhang, Jiawei Han, "Incorporating World Knowledge to Document Clustering via Heterogeneous Information Networks", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

16. Honglei Zhuang, Aditya Parameswaran, Dan Roth, Jiawei Han, "Debiasing Crowdsourced Batches", in Proc. of 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

17. Xiang Ren, Ahmed El-Kishky, Chi Wang, and Jiawei Han, "Automatic Entity Recognition and Typing from Massive Text Corpora: A Phrase and Network Mining Approach" (conference tutorial), 2015 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD’15), Sydney, Australia, Aug. 2015.

18. Aston Zhang, Amit Goyal, Weiße Kong, Hongbo Deng, Anlei Dong, Yi Chang, Carl A. Gunter, Jiawei Han, "adaQAC: Adaptive Query Auto-Completion via Implicit Negative Feedback", in Proc. of 2015 ACM SIGIR Conf. on Research & Development in Information Retrieval (SIGIR’15), Santiago, Chile, Aug. 2015.

19. Jiawei Han, Heng Ji, Yizhou Sun, "Successful Data Mining Methods for NLP", in Proc. 2015 Annual Meet. of the Association for Computational Linguistics and Int. Joint Conf. on Natural Language Processing of the Asian Federation of Natural Language Processing (ACL’15) (Tutorial Abstract), Beijing, China, July 2015, pp. 1-4.
20. Boliang Zhang, Hongzhao Huang, Xiaoman Pan, Sujian Li, Chin-Yew Lin, Heng Ji, Kevin Knight, Zhen Wen, Yizhou Sun, Jiawei Han, Bulent Yener, Context-aware Entity Morph Decoding, in Proc. 2015 Annual Meet. of the Association for Computational Linguistics and Int. Joint Conf. on Natural Language Processing of the Asian Federation of Natural Language Processing (ACL’15), Beijing, China, July 2015, pp. 586-595.

21. 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”, in Proc. 2015 Int. Joint Conf. on Artificial Intelligence (IJCAI’15), Buenos Aires, Argentina, July 2015

22. Jialu Liu, Jingbo Shang, Chi Wang, Xiang Ren, Jiawei Han, “Mining Quality Phrases from Massive Text Corpora”, in Proc. of 2015 ACM SIGMOD Int. Conf. on Management of Data (SIGMOD’15). Melbourne, Australia, May 2015 (won Grand Prize in Yelp Dataset Challenge, 2015)

23. Fangbo Tao, Bo Zhao, Ariel Fuxman, Yang Li, Jiawei Han, “Leveraging Pattern Semantics for Constructing Entity Taxonomies in Enterprises”, in Proc. of 2015 Int. Conf. on World-Wide Web (WWW’15), Florence, Italy, May 2015

24. Huan Gui, Ya Xu, Anmol Bhasin, Jiawei Han, “Network A/B Testing: From Sampling to Estimation”, in Proc. of 2015 Int. Conf. on World-Wide Web (WWW’15), Florence, Italy, May 2015

25. Jialu Liu, Chi Wang, Jing Gao, Quanquan Gu, Charu Aggarwal, Lance Kaplan, and Jiawei Han, * GiN: A Clustering Model for Capturing Dual Heterogeneity in Networked Data*, in Proc. of 2015 SIAM Int. Conf. on Data Mining (SDM’15), Vancouver, Canada, Apr. 2015 (selected as one of the best papers in the conference and invited to journal Statistical Analysis and Data Mining (SADM) special issue “Best of SDM 2015”)

26. Mengting Wan, Yunbo Ouyang, Lance Kaplan, Jiawei Han, * Graph Regularized Meta-path Based Transductive Regression in Heterogeneous Information Network*, in Proc. of 2015 ACM SIGKDD Int. Conf. on Data Mining (SIGKDD’15), Vancouver, Canada, Aug. 2015

27. Jingjing Wang, Hongbo Deng, and Jiawei Han, “Topic Periodicity Discovery from Text Data”, in Proc. SPIE Vol. 9499, Next-Generation Analyst III, Baltimore, Maryland, April 2015

28. Wei Feng, Chao Zhang, Wei Zhang, Jiawei Han, Jianyong Wang, Charu Aggarwal, Jianbin Huang, “STREAMCUBE: Hierarchical Spatio-temporal Hashtag Clustering for Event Exploration over the Twitter Stream”, in Proc of 2015 IEEE Int. Conf. on Data Engineering (ICDE’15), Seoul, Korea, Apr. 2015

29. Jonathan Kuck, Honglei Zhuang, Xifeng Yan, Hasan Cam, and Jiawei Han, “Query-Based Outlier Detection in Heterogeneous Information Networks”, in Proc. of 2015 Int. Conf. on Extending Database Technology (EDBT’15), Brussels, Belgium, Mar. 2015 (selected as one of the best papers in the conference and invited to journal ACM Transactions on Database Systems (TODS) as Best of EDBT 2015)

30. Jialu Liu, Charu Aggarwal and Jiawei Han, *On Integrating Network and Community Discovery*, in Proc. of 2015 Int. Conf. on Web Search and Data Mining (WSDM’15), Shanghai, China, Feb. 2015, pp. 117-126

31. Doris Xin, De Liao and Jiawei Han, “Active Learning in Heterogeneous Information Networks, in Proc. of 2015 Int. School and Conf. on Network Science (NetSci-x2015), Rio de Janeiro, Brazil, Jan. 2015

32. Lu-An Tang, Xiao Yu, Quanquan Gu, Jiawei Han, Guofei Jiang, Alice Leung, and Thomas La Porta, “A Framework of Mining Trajectories from Untrustworthy Data in Cyber-Physical System”, ACM Transactions on Knowledge Discovery from Data (TKDD), 9(3):16:1-16:35, 2015

33. Zhenhui Li, Jingjing Wang, and Jiawei Han, *ePeriodicity: Mining Event Periodicity from Incomplete Observations*, IEEE Transactions on Knowledge and Data Engineering (TKDE), 27(5): 1219-1232, 2015

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35. Ming Ji, Qi He, Jiawei Han, and Scott Spangler, “Mining Strong Relevance between Heterogeneous Entities from Unstructured Biomedical Data”, Data Mining and Knowledge Discovery (DMKD), 29(4): 976-998, 2015

36. Wei Shen, Jianyong Wang, Jiawei Han, "Entity Linking with a Knowledge Base: Issues, Techniques, and Solutions", IEEE Transactions on Knowledge and Data Engineering (TKDE), 27(2): 443-460, 2015

37. Yong Yang, Lu Su, Mohammad Mafli Hasan Khan, Michael LeMay, Tarek F. Abdelzaher, Jiawei Han, "Power-Based Diagnosis of Node Silence in Remote High-End Sensing Systems", ACM Transactions on Sensor Networks (TOSN), 11(2): 33:1-33:33, 2015

38. Jun Li, Qiming Qin, Jiawei Han, Lu An, “Mining Trajectory Data and Geotagged Data in Social Media for Road Map Inference”, Transactions in GIS (T. GIS) 19(1):1-18, 2015

39. Chi Wang, Jialu Liu, Nihit Desai, Marina Danilevsky, and Jiawei Han, "Constructing Topical Hierarchies in Heterogeneous Information Networks", Knowledge and Information Systems (KAIIS), 44(3): 529-558, 2015


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2. Yizhou Sun, Jie Tang, Jiawei Han, Cheng Chen, and Manish Gupta, “Co-Evolution of Multi-Typed Objects in Dynamic Heterogeneous Information Networks”, IEEE Transactions on Knowledge and Data Engineering (TKDE), 26(12): 2942-2955, 2014

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4. Honglei Zhuang, Jing Zhang, George Brova, Jie Tang, Hasan Cam, Xifeng Yan and Jiawei Han, *Mining Query-Based Subnetwork Outliers in Heterogeneous Information Networks*, in Proc. of 2014 IEEE Int. Conf. on Data Mining (ICDM’14), Shenzhen, China, Dec. 2014.

5. Quanquan Gu and Jiawei Han, *Online Spectral Learning on a Graph with Bandit Feedback*, in Proc. of 2014 IEEE Int. Conf. on Data Mining (ICDM’14), Shenzhen, China, Dec. 2014.

6. Lu Su, Qi Li, Shaohan Hu, Shiguang Wang, Jing Gao, Hengchang Liu, Tarek Abdelzaher, Jiawei Han, Xue Liu, Yan Gao and Lance Kaplan, “Generalized Decision Aggregation in Distributed Sensing Systems”, in Proc. of IEEE Real-Time Systems Symposium (RTSS’14), Rome, Italy, Dec. 2014

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