Research Publications - Data Mining Research Group at CS, UIUC

2019

1. Honglei Zhuang, Timothy Hanratty, and Jiawei Han, "Aspect-Based Sentiment Analysis with Minimal Guidance", in Proc. 2019 SIAM Int. Conf. on Data Mining (SDM’19), Calgary, Alberta, Canada, May 2019
2. Sha Li, Chao Zhang, Dongming Lei, Ji Li, Jiawei Han, "GeoAtttn: Fine-Grained Localization of Social Media Messages via Attentional Memory Network", in Proc. 2019 SIAM Int. Conf. on Data Mining (SDM’19), Calgary, Alberta, Canada, May 2019
3. 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
4. Jiaming Shen, Ruiiliang 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
5. 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
6. Xuan Wang, Yu Zhang, Xiang Ren, Yuhao Zhang, Marinika 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, Jialu 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, Wenzhuong Tong, Jinfeng Xiao, Jian Peng, Jiawei Han. "DPPred: An Effective Prediction Framework with Convex-type 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, Zhaoran Wang, 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, Xiushi 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, Liuyuan 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. Liuyuan 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, Wenqi 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 Text Neutral 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, Jenfung Xiao, Yu Zhang, Chang Shang, Jinda Jin, Carl Yang, Yu Zhu, Saurabh Sinha, Peipei Ping, Richard Weishilboum, 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, Jiaming Shen, Keqian Li, Warren Greiff, Michelle Vanni, Jiawei Han and Xifeng Yan, "FTS: Faceted Taxonomy Construction and Search for Scientific Publications", 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, Xiaolim 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, Xiushi 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. Li, Meng Jiang, Xikun Zhang, Meng Ou, 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, Zegui 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, Zhengzhi Lou, Yu Shi and Jiawei Han, "Temporal Motifs in Heterogeneous Information Networks", in Proc. of 2018 Int. Conference on Web Search and Data Mining (WSDM’18), Paris, France, February 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 2018 Annual Meeting of the Association for Computational Linguistics (ACL’18), Melbourne, Australia, July 2018
32. Jiaming Shen, Jenfung 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 2018, 2nd Workshop on Subword and Character Level Models in NLP (SCLeM’18) (at NAACL 2018), New Orleans, LA, June 2018
34. Yu Shi, Huan Gai, Qi Zhu, Lance Kaplan, Jiawei Han, "AspEm: Embedding Learning by Aspects in Heterogeneous Information Networks", 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", 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 X. 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 mention)
37. Carl Yang, Chao Zhang, Jiawei Han, Zheyun Chen, Jiezping Ye, "Did You Enjoy the Ride: Understanding Passenger Experience via Heterogeneous Network Embedding", Proc. of 2018, IEEE International Conference on Data Engineering, Paris, France, April 2018
38. Liyuan 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, "Spatial-Temporal 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", Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAAI’18), New Orleans, LA, Feb. 2018
41. Zegui 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, Aravinda 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
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.

2. Xiang Ren, Wenqi He, Meng Qu, Lifu Huang, Heng Ji, and Jiawei Han, "AFET: Automatic Fine-Grained Entity Typing by Hierarchical Partial-Label Embedding", in Proc. of 2016 Conf. on Empirical Methods in Natural Language Processing (EMNLP'16), Austin, TX, Nov. 2016.

3. Meng Jiang, Peng Cui, and Jiawei Han, "Data-Driven Behavioral Analytics: Observations, Representations and Models", in Proc. of 2016 ACM Int. Conf. on Information and Knowledge Management (CIKM'16) (conference tutorial), Indianapolis, IN, Oct. 2016.

4. Tarique Siddiqui, Xiang Ren, Aditya Parameswaran and Jiawei Han, "FacetGist: Collective Extraction of Document Facets in Large Technical Corpora", in Proc. of 2016 ACM Int. Conf. on Information and Knowledge Management (CIKM'16), Indianapolis, IN, Oct. 2016.

5. Hongkun Yu, Jingbo Shang, Meichun Hsu, Malú Castellanos and Jiawei Han, "Data-Driven Contextual Valence Shifter Quantification for Multi-Theme Sentiment Analysis", in Proc. of 2016 ACM Int. Conf. on Information and Knowledge Management (CIKM'16), Indianapolis, IN, Oct. 2016.

6. Qian Cheng, Jingbo Shang, Joshua Juen, Jiawei Han and Bruce Schatz, "Mining Discriminative Patterns to Predict Health Status for Cardiopulmonary Patients", in Proc. of 2016 ACM Int. Conf. on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB'16), Seattle, WA, Oct. 2016.

7. Fangbo Tao, Honglei Zhuang, Chi Wang Yu, Qi Wang, Taylor Cassidy, Lance Kaplan, Clare Voss, Jiawei Han, "Multi-Dimensional, Phrase-Based Summarization in Text Cubes", Data Eng. Bulletin 39(3), Sept. 2016, pp. 74-84.

8. Di Lu, Clare R. Voss, Fangbo Tao, Xiang Ren, Ren, Rostyslav Korolov, Tongtao Zhang, Dongqiang Wang, Hongzhi Li, Taylor Cassidy, Heng Ji, Shih-Fu Chang, Jiawei Han, William Wallace, James Hendler, Mei Si and Lance Kaplan, "Cross-media Event Extraction and Recommendation", in Proc. of 2016 Annual Conf. of the North American Chapter of the Association for Computational Linguistics (NAACL), 2016. [Demo System]

9. Huan Gui, Haiashan Liu, Xiangrui Meng, Anmol Bhasin, Jiawei Han, "Downside Management in Recommender Systems", in Proc. of 2016 IEEE/ACM Int. Conf. on Advances in Social Networks Analysis and Mining (ASONAM'16), San Francisco, CA, Aug. 2016.

10. Rostyslav Korolov, Di Lu, Jingbo Shang, Guangyu Zhou, Claire Bonial, Clare Voss, Lance Kaplan, William Wallace, Jiawei Han and Heng Ji, "On Predicting Social Unrest Using Social Media", in Proc. of 2016 IEEE/ACM Int. Conf. on Advances in Social Networks Analysis and Mining (ASONAM'16), San Francisco, CA, Aug. 2016.

11. Chao Zhang, Keyang Zhang Quan Yuan, Luming Zhang, Tim Hanraity, and Jiawei Han, "GMove: Group-Level Mobility Modeling Using Geo-Tagged Social Media", in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD'16), San Francisco, CA, Aug. 2016.

12. Meng Jiang, Christos Faloutsos, Jiawei Han, "CatchTartan: Representing and Summarizing Dynamic Multicontextual Behaviors", in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD'16), San Francisco, CA, Aug. 2016.

13. Xiang Ren, Wenqi He, Meng Qu, Clare R. Voss, Heng Ji, Jiawei Han, "Label Noise Reduction in Entity Typing by Heterogeneous Partial-Label Embedding", in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD'16), San Francisco, CA, Aug. 2016.

14. Mengting Wan, Xiangyu Chen, Lance Kaplan, Jiawei Han, Jing Gao, Bo Zhao, "From Truth Discovery to Trustworthy Opinion Discovery: An Uncertainty-Aware Quantitative Modeling Approach", in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD'16), San Francisco, CA, Aug. 2016.

15. Jing Gao, Qi Li, Bo Zhao, Wei Fan, and Jiawei Han, "Mining Reliable Information from Passively and Actively Crowdsourced Data" (tutorial), in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD'16), San Francisco, CA, Aug. 2016.

16. Xiang Ren, Ahmed El-Kishky, Clare R. Voss, Heng JI, Meng Qu and Jiawei Han, "Entity Typing: A Critical Step for Mining Structures from Massive Unstructured Text", in Proc. of 2016 Int. workshop on Mining and Learning with Graphs (MLG'16), colocated with KDD'16, San Francisco, CA, Aug. 14, 2016.

17. Chao Zhang, Guangyu Zhou, Quan Yuan, Honglei Zhuang, Yu Zheng, Lance Kaplan, Shaowen Wang, Jiawei Han, "GeoBurst: Real-time Local Event Detection in Geo-tagged Tweet Stream", in Proc. of 2016 ACM SIGIR Conf. on Research & Development in Information Retrieval (SIGIR'16), Pisa, Italy, July 2016.

18. Jingting Wang, Changsung Kang, Yi Chang and Jiawei Han, "Learning Hostname Preference to Enhance Search Relevance", in Proc. of 2016 Int. Joint Conf. on Artificial Intelligence (IJCAI'16), New York City, NY, July 2016.

19. Wei Zhang, Quan Yuan, Jiawei Han and Jianyong Wang, "Collaborative Multi-Level Embedding Learning from Reviews for Rating Prediction", in Proc. of 2016 Int. Joint Conf. on Artificial Intelligence (IJCAI'16), New York City, NY, July 2016.

20. Huan Gui, Jiawei Han, Quanquan Gu, "Towards Faster Rates and Oracle Property for Low-Rank Matrix Estimation", in Proc. of 2016 Int. Conf. on Machine Learning (ICML'16), New York City, NY, June 2016.

21. Xiang Ren, Ahmed El-Kishky, Clare R. Voss, Heng Ji, and Jiawei Han, "Automatic Entity Recognition and Typing in Massive Text Data", (Conference Tutorial) 2016 ACM SIGMOD Int. Conf. on Management of Data (SIGMOD'16), San Francisco, CA, June 2016.

22. Jingbo Shang, Wenzhu Tong, Jian Peng, and Jiawei Han, "DPClass: An Effective but Concise Discriminative Patterns-Based Classification Framework", in Proc. of 2016 SIAM Int. Conf. on Data Mining (SDM'16), Miami, FL, May 2016.

23. Jingbo Shang, Jian Peng, and Jiawei Han, "MACFP: Maximal Approximate Consecutive Frequent Pattern Mining under Edit Distance", in Proc. of 2016 SIAM Int. Conf. on Data Mining (SDM'16), Miami, FL, May 2016.

24. Chenguang Wang, Yizhou Sun, Yanglei Song, Jiawei Han, Yangqiu Song, Lidan Wang, and Ming Zhang, "Querying Similar Relations in Schema-Rich Heterogeneous Information Networks", in Proc. of 2016 SIAM Int. Conf. on Data Mining (SDM'16), Miami, FL, May 2016.

25. Lingxiao Wang, Xiang Ren, Quanquan Gu, "Precision Matrix Estimation in High Dimensional Gaussian Graphical Models with Faster Rates", in Proc. of 2016 Int. Conf. on Artificial Intelligence and Statistics (AISTATS'16), Cadiz, Spain, May 9 - 11, 2016.

26. Xiang Ren, Ahmed El-Kishky, Chi Wang, and Jiawei Han, "Automatic Entity Recognition and Typing in Massive Text Corpora", (Conference tutorial), 2016 World-Wide Web Conf. (WWW'16), Montreal, Canada, April 2016.

27. Jialu Liu, Xiang Ren, Jingbo Shang, Taylor Cassidy, Clare Voss and Jiawei Han, "Representing Documents via Latent Keyphrase Inference", in Proc. of 2016 Int. World-Wide Web Conf. (WWW'16), Montreal, Canada, April 2016.

28. Yang Li, Shulong Tan, Huan Sun, Jiawei Han, Dan Roth and Xifeng Yan, "Entity Disambiguation with Linkless Knowledge Bases", in Proc. of 2016 Int. World-Wide Web Conf. (WWW'16), Montreal, Canada, April 2016.

29. Aston Zhang, Amit Goyal, Ricardo Baeza-Yates, Yi Chang, Jiawei Han, Carl A. Gunter and Hongbo Deng, "Towards Mobile Query Auto-Completion: An Efficient Mobile Application-Aware Approach", in Proc. of 2016 Int. World-Wide Web Conf. (WWW'16), Montreal, Canada, April 2016.
2015

1. Jingjing Wang, Wenzhu Tong, Hongkun Yu, Min Li, Xiuli Ma, Haoyan Cai, Tim Hanratty, and Jiawei Han, "Mining Multi-Aspect Reflection 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, Yaqiu 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-Kishkhy, 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), 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, Portugal, Sept. 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. (Received the Best Student Paper Runner-Up award at ECMLPKDD 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-Kishkhy, 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, "FaitCrowd: 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, Xueqing 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, Cangzhou Yuan, "T0PTRAC: 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, Yaqiu Song, Ahmed El-Kishkhy, 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-Kishkhy, 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. Ashutosh Goyal, Weiwei Kong, Hongbo Deng, Anli 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, Jeng-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

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