Research Publications - Data Mining Research Group at CS, UIUC

2019

1. Shuochao Yao, Ailing Piao, Wenjun Jiang, Yiran Zhao, Huajie Shao, Shengzhong Liu, Dongxin Liu, Jinyang Li, Tianxi Wang, Shaohan Hu, Lu Su, Jiawei Han and Tarek Abdelzaher, "STFNNets: Learning Sensing Signals from the Time-Frequency Perspective with Short-Time Fourier Neural Networks", in Proc. the Web Conf. 2019 (WWW'19), San Francisco, CA, May 2019

2. Carl Yang, Huy Hoang Do, Tomas Mikolov and Jiawei Han "Place Deduplication with Embeddings", in Proc. the Web Conf. 2019 (WWW'19), San Francisco, CA, May 2019

3. 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

4. Sha Li, Chao Zhang, Dongming Lei, Ji Li, Jiawei Han, "GeoAttn: 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

5. 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

6. Jiaming Shen, Ruilang 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

7. 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

8. 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, 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, Wenzhu Tong, Jinfeng Xiao, Jian Peng, Jiawei Han. "DPred: An Effective Prediction Framework with Concise Discriminative Patterns", IEEE Transactions on Knowledge and Data Engineering, 30(7): 1226-1239 (2018)

4. Chenguang Wang, Yangqu Song, Haoran Li, Ming Zhang, Jiawei Han, "Unsupervised meta-path selection for text similarity measurement based on heterogeneous information network", 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 Wang, Zhengyu 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: Allocating Documents to Text Cube without Labeled Data", 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, 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 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
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

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

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

Jingbo Shang, Chao Zhang, Jiaming Shen, Jiawei Han, "Towards Multidimensional Analysis of Text Corpora", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (Conference Tutorial), London, UK, Aug. 2018

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 Cora", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), (demo paper), London, UK, August 2018

Jiaming Shen*, Jinfeng Xiao*, Yu Zhang, Carl Yang, Jingbo Shang, Jinda Han, Saurabh Sinha, Peipei Ping, Richard Weinshilboum, Zhongqiang Meng 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

Hanwen Zha, Jiaming Shen, Keqian Li, Warren Greiff, Michelle Vanni, Jiawei Han and Xileng 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

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

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", in Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'18), London, UK, August 2018

Qi Li, Meng Jiang, Xikun Zhang, Meng Qu, Timothy Harrratty, 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

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

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

Yuchen Li, Zhengzhi 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

Yucheng Xu and Jiawei Han, "SetSearch+: Entity-Set-Aware Search and Mining for Scientific Literature", in Proc. of 2018 Annual Meeting of the Association for Computational Linguistics (ACL'18), Melbourne, Australia, July 2018

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 ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR'18), Ann Arbor, MI, July 2018

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 (SCLeM’18) (at NAACL 2018), New Orleans, LA, June 2018

Yu Shi, Huan Gui, 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

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

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)

Carl Yang, Chao Zhang, Jiawei Han, Xuewen Chen, Jieping Ye, "Did You Enjoy the Ride: Understanding Passenger Experience via Heterogeneous Network Embedding", Proc. of 2018, IEEE International Conference on Data Engineering (ICDE'18) , Paris, France, April 2018

Liuyan Liu, Jingbo Shang, Frank Xu, Xiang Ren, Huan Gui, Jiaming Shen, Jiawei Han, "Empower Sequence Labeling with Task-Aware Neural Language Model", in Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAA’18), New Orleans, LA, Feb. 2018

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Wanzheng Zhu, Chao Zhang, Shuochao 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 (AAA’18), New Orleans, LA, Feb. 2018

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

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

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. Aditya 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
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 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, Claire R. Voss, Fangbo Tao, Xiang Ren, Rachel Guan, Rostyslav Korolov, Tongtao Zhang, Dongang Wang, Hongzhi Li, Taylor Cassidy, Heng Ji, Shih-Fu Chang, Jiawei Han, Willam 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, Haishan 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, Jingjing Wang, 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 Hannatty, 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" (conf. tutorial), in Proc. of 2016 ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD’16), San Francisco, CA, Aug. 2016.

16. Xiang Ren, Wenqi He, 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. Jingjing 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 Jiayong 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, Heng Ji, and Jiawei Han, "Automatic Entity Recognition and Typing in Massive Text Data", (Conference Tutorial) 2016 ACM SIGMOD Int. Conf. of Management of Data (SIGMOD’16), San Francisco, CA, June 2016.

22. Jingbo Shang, Wenzhu Tong, Jia 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, Jia 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", 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 Int. 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

30. Xiuli Ma, Guangyu Zhou, Jingjing Wang, Jian Peng, and Jiawei Han, "Complexes Detection in Biological Networks via Diversified Dense Subgraphs Mining", in Proc. of 2016 Int. Conf. on Research in Computational Molecular Biology (RECOMB’16), Los Angeles, CA, Apr. 2016.

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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", in 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.


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2015

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2. Chenguang Wang, Yangqiu Song, Haoiran 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.

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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, Portugal, 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, September 2015. (Received the Best Student Paper Runner-Up award at ECML/PKDD 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 Qui, 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.

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