Fei Wang

CONTACT INFORMATION

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RESEARCH INTERESTS

Big Data Analytics, Biomedical Informatics

EDUCATION

Tsinghua University, Beijing, P. R. China

Ph.D., Department of Automation, July 2, 2008

- Dissertation Title: "Graph-based Semi-supervised Learning"
- Advisor: Changshui Zhang

Xidian University, Xi'an, Xidian Unversity, P. R. China

B.E., Automation, July, 2003

- Thesis Title: "An Athlete Training Support System Based on Visual C++"

EMPLOYMENT

- Assistant Professor. Division of Health Informatics. Department of Healthcare Policy and Research. Weill Cornell Medical College. Cornell University. May 2016 – now.
- Associate Professor. Department of Computer Science and Engineering, School of Engineering, University of Connecticut. Jan. 2015 – May 2016.
- Research Staff Member. IBM T. J. Watson Research Center. Apr. 2012 – Dec. 2014.
- Postdoctoral Researcher. IBM T. J. Watson Research Center. Jul. 2010 – Dec. 2011.
- Postdoctoral Researcher. Department of Statistical Science. Cornell University. Aug. 2009 – Jul. 2010.
- Postdoctoral Researcher. School of Computing and Information Science. Florida International University. Aug. 2008 – Jul. 2009.

HONORS AND AWARDS

- 2016 Michael J. Fox Foundation The Parkinson's Progression Markers Initiative (PPMI) Data Challenge winner on subtyping Parkinson's disease. Award $25,000.
- ICHI 2016 Best Short Paper Award
- ICDM 2015 Best Student Paper Award
- SDM 2015 Best Research Paper Award Finalist
- AMIA TBI 2014 Finalist for Marco Romani Distinguished Paper Award on Translational Bioinformatics.
- SDM 2011 Best Research Paper Award Finalist
- ICDM 2010 Best Research Paper Award Honorable Mention
- IBM Research Outstanding Technical Achievement Award, 2014
- IBM Research Division Award, 2012 and 2013
- IBM Research Invention Achievement: The 1st to 10th Plateau Award
- IBM Research Level A Accomplishment Award
- IBM Research Invention Achievement: The First Patent Application Award
- 2011 National Excellent Doctoral Thesis Award in China

FUNDINGS

- EAGER: Patient Similarity Learning with Massive Clinical Data and Its Applications in Cohort Identification
  - Role: Principal Investigator
  - Agency: NSF IIS Smart and Connected Health Program

- Number: NSF IIS-1650723
- Amount: $299,880
- Period: 09/01/2016–08/31/2018
- Categorizing, Predicting and Managing High Utilizers
  - Role: Co-Investigator
  - Agency: PCORI
  - Amount: $1,198,778
  - Period: 07/01/2016–06/30/2017

PROFESSIONAL MEMBERSHIPS AND SERVICES

- Elected Vice Chair of KDD Working Group. AMIA. Since 2015.
- IEEE Member, since 2012. IEEE Senior Member, since 2015.
- INFORMS Member, since 2015.
- ACM Professional Member, since 2012.
- SIAM Member since 2013.
- AMIA Member, since 2013.

TUTORIAL PRESENTATIONS

1. Healthcare Data Mining with Matrix Models. Tutorial at the 22nd ACM International Conference on Knowledge Discovery from Data (**KDD**). 2016 (3 hours, with Ping Zhang)

2. Biomedical Data Mining with Matrix Models. Tutorial at the 16th SIAM International Conference on Data Mining (**SDM**). 2016 (3 hours, with Ping Zhang)

3. Data Analytics in Healthcare Informatics. Tutorial at IEEE International Conference on Health Informatics (**ICHI**). 2015. (4 hours, with Gregor Stiglic)

4. Data Analytics with Electronic Health Records. Tutorial at 29th AAAI Conference on Artificial Intelligence (**AAAI**). 2015. (4 hours)

5. Data Analytics in Healthcare: Problems, Solutions and Challenges. Tutorial at ACM 23rd Conference on Information and Knowledge Management (**CIKM**), 2014. (3 hours)

6. Feature Engineering for Health Informatics. Tutorial at The 18th Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**). Tainan, Taiwan. 2014 (3 hours)

7. Applied Matrix Analytics: Recent Advances and Case Studies. Tutorial at 13th IEEE International Conference on Data Mining (**ICDM**). Dallas, Texas. 2013 (2 hours, with Hanghang Tong and Chris Ding)

8. Large Scale Similarity Learning and Indexing. Tutorial on ACM 22nd Conference on Information and Knowledge Management (**CIKM**), 2013. (3 hours, with Jun Wang)

9. Recent Advances in Applied Matrix Technologies. Tutorial on the 13th SIAM Data Mining Conference (**SDM**). Austin, Texas. 2013. (2 hours, with Hanghang Tong)

10. Distance Metric Learning in Data Mining. Tutorial on the 12th SIAM Data Mining Conference (**SDM**). Anaheim, California. 2012. (2 hours, with Jimeng Sun)

11. Data Mining with Graphs and Matrices. Tutorial on the 9th IEEE International Conference on Data Mining (**ICDM**), 2009. (3 hours, with Tao Li and Chris Ding)

12. Data Mining with Graphs and Matrices. Tutorial on the 9th SIAM International Conference on Data Mining (**SDM**), 2009. (2 hours, with Tao Li and Chris Ding)

13. Knowledge & Information Management Using Graphs and Matrices. Tutorial on ACM 17th Conference on Information and Knowledge Management (**CIKM**), 2008. (3 hours, with Tao Li and Chris Ding)

1. Integrative Network Analytics for Insights Generation from Massive Healthcare Data

   - Department of Electrical and Computer Engineering. UCLA. Los Angeles. CA. September 2016.
   - Phillips Research North America. Boston. MA. May 2016.

2. Graph Based Analytics for Biomedical Data

   - Department of Healthcare Policy and Research. Weill Cornell Medical College. Cornell University. December 2015.

3. Big Data Healthcare

   - Minisymposium on Mining and Analytics with Big Data, ICIAM 2015

4. Learning Effective Representations with Electronic Health Records

   - Keynote at The Second Representation Learning for Semantic Data (ReLSD) Workshop in conjunction with ICDM. November 2015.
   - Department of Computer Science and Engineering. Texas A&M University. October 2015.
   - Department of Computer Science. Wayne State University. September 2015.
   - CSAIL. MIT. June 2015.
   - Department of Computer Science. Temple University. June 2015.
   - Big Data colloquium. University of Pittsburgh. April 2015.
   - Department of Biostatistics. University of Buffalo. April 2015.
   - Department of Electrical Engineering and Computer Science. Northwestern University. April 2015.
   - University of Connecticut Health Center. March 2015.

5. Recommendation in Biomedical Informatics.

   - Workshop on Machine Learning for Recommendation (mlrec), SDM 2015.

6. Feature Engineering for Predictive Modeling with Large Scale Electronic Medical Records

   - Department of Computer Science and Engineering. University of Connecticut. 2014.
   - Department of Computer Science. Washington State University. 2014.
   - Department of Computer Science. New Jersey Institute of Technology. 2014.
   - Department of Computer Science. University of Maryland Baltimore County. 2014.
   - Department of Computer Science. Louisiana State University. 2014.
   - Graduate Center, Department of Computer Science, City University of New York. 2013.
   - The 2nd Rochester Big Data Forum, University of Rochester, 2013.
   - Chinese Institute of Engineers, Greater New York Area Convention, 2013.
   - Stanford Center for Biomedical Informatics Research, Stanford University. 2013.
   - Department of Computer Science. University of Texas at Dallas. 2013.
   - Keynote. The 8th Workshop on Optimization Based Techniques for Emerging Data Mining Problems (OEDM). Held in conjunction with ICDM 2013. Dallas, Texas, USA.

7. Nonnegative Matrix Factorization: Recent Advances

   - Department of Computer Science, Tsinghua University. Beijing, China. Dec. 2012.
   - School of Electronics Engineering and Computer Science, Peking University. Beijing, China. Dec. 2012.

- Department of Computer Science, Beijing Jiaotong University. Beijing, China. Dec. 2012.
- School of Electrical Engineering, Xidian University. Xi'an, Shaanxi. China. Dec. 2012.
- Department of Computer Science, Lanzhou University. Lanzhou, Gansu. China. Dec. 2012.

8. Graph Based Semi-Supervised Learning.

   - Healthcare Analytics Research Group, IBM T.J. Watson Research Center. Host: Shahram Ebadollahi. April. 2010.
   - Division of CCM, School of Computer Engineering. Nanyang Technological University. Host: Jianfei Cai. November. 2009.
   - University of Texas at Arlington. Host: Chris Ding. Dallas, Texas. April 2009.
   - Florida International University. Host: Tao Li. Miami, Florida, USA. October 2008.
   - Miami University. Host: Mitsunori Ogihara. Miami, Florida, USA. October 2008.
   - Beijing Jiaotong University. Host: Jian Yu. Beijing, China. April 2008.

9. Community Discovery via Matrix Factorization. Department of Computer Science. Tsinghua University. Host: Shiqiang Yang. November. 2009.

10. Efficient Random Projections for NMF. Department of Automation. Tsinghua University. Host: Changshui Zhang. November. 2009.

11. An Introduction to Spectral Clustering. Bioinformatics group, Department of Automation. Tsinghua University. Host: Xiaowo Wang. Beijing, China. October, 2007.

PUBLICATIONS   **Book Chapter**

1. Liang Xiong, **Fei Wang**, Changshui Zhang. Guide Manifold Alignment by Relative Comparisons. Invited Chapter in Encyclopedia of Data Warehousing and Mining - 2nd Edition. To Appear.

2. **Fei Wang**. Social Networks in Healthcare, Case Study. Book Chapter in Encyclopedia of Social Network Analysis and Mining. Springer Verlag. 2013.

3. Jianying Hu, Adam Perer, and **Fei Wang**. Data Driven Analytics for Personalized Healthcare. In Healthcare Information Management Systems, pp. 529-554. Springer International Publishing, 2016.

Editorials

1. Peng Cui, Huan Liu, Charu Aggarwal, **Fei Wang**. Online Behavioral Analysis and Modeling. **IEEE Intelligent Systems** 31(1): 2-4. 2016.

2. **Fei Wang**, Gregor Stiglic, Zoran Obradovic, Ian Davidson. Guest editorial: Special issue on data mining for medicine and healthcare. Data Mining and Knowledge Discovery (**DMKD**). July, vol. 29, no. 4, pp 867-870. 2015.

3. Peng Cui, **Fei Wang**, Hanghang Tong, Manuel Gomez-Rodriguez: 1st Workshop on Diffusion Networks and Cascade Analytics. Seventh ACM International Conference on Web Search and Data Mining (**WSDM**). 689-690. 2014.

4. **Fei Wang**, Hanghang Tong, Philip Yu, Charu Aggarwal. Guest Editorial: Special Issue on Data Mining Technologies for Computational Social Science. Data Mining and Knowledge Discovery (**DMKD**). 25(3): 415-419 (2012).

5. **Fei Wang**, Peng Cui, Gordon Sun, Tat-Seng Chua, Shiqiang Yang. Guest Editorial: Special Issue for Information Retrieval for Social Media. **Information Retrieval**. vol. 15: 179-182. 2012.

6. Naeem Ramzan, **Fei Wang**, Charalampos Z. Patrikakis, Peng Cui, Nikolaos D. Doulamis, Shiqiang Yang, Gordon Sun: ACM international workshop on social and behavioral networked media access (**SBNMA**). ACM Multimedia 2011: 611-612.

7. Tao Li, Chris Ding, **Fei Wang**. Guest Editorial: Special Issue on Data Mining with Matrices, Graphs and Tensors. Data Mining and Knowledge Discovery (**DMKD**). vol. 22, no. 3. 337-339. 2011.

Journals

1. Inci M. Baytas, Kaixiang Lin, **Fei Wang**, Anil K. Jain and Jiayu Zhou. PhenoTree: Interactive Visual Analytics for Hierarchical Phenotyping from Large-Scale Electronic Health Records. IEEE Transactions on Multimedia (**TMM**). 2016

2. Li Guo, Bo Jin, Cuili Yao, Haoyu Yang, Degen Huang, **Fei Wang**. Which Doctor to Trust: A Recommender System for Identifying the Right Doctors. Journal of Medical Internet Research (**JMIR**). 2016. To Appear.(Impact factor 4.532)

3. Linyun Yu, Peng Cui, **Fei Wang**, Chaoming Song, Shiqiang Yang. Uncovering and Predicting the Dynamic Process of Information Cascades with Survival Model. Knowledge and Information System (**KAIS**). 2016. To Appear.

4. Yuan Luo, **Fei Wang**, Peter Szolovitz. Tensor Factorization Toward Precision Medicine. **Briefings in Bioinformatics**. doi: 10.1093/bib/bbw026. 2016. To Appear. (Impact factor 8.399)

5. Peng Cui, Huan Liu, Charu Aggarwal, **Fei Wang**. Uncovering and Predicting Human Behaviors. **IEEE Intelligent Systems** 31(2): 77-88. 2016.

6. Gregor Stiglic, Petra Povalej Brzan, Nino Fijacko, **Fei Wang**, Boris Delibasic, Alexandros Kalousis, Zoran Obradovic. Comprehensible Predictive Modeling Using Regularized Logistic Regression and Comorbidity Based Features. **Plos ONE**. 10, no. 12: e0144439. 2015.

7. Jianqiang Li, **Fei Wang**. Towards Unsupervised Gene Selection: A Matrix Factorization Framework. IEEE/ACM Transactions on Computational Biology and Bioinformatics (**TCBB**)., 2015.

8. Ping Zhang, **Fei Wang**, Jianying Hu, Robert Sorrentino. Label Propagation Prediction of Drug-Drug Interactions Based on Clinical Side Effects. **Nature Scientific Reports**., 5: 12339. 2015. (Impact factor 5.228)

9. Adam Perer, **Fei Wang**, Jianying Hu. Mining and Exploring Care Pathways from Electronic Medical Records with Visual Analytics. Journal of Biomedical Informatics (**JBI**), August, Volume 56, 369-378. 2015.

10. Meng Jiang, Peng Cui, Xumin Chen, **Fei Wang**, Wenwu Zhu and Shiqiang Yang. Social Recommendation with Cross-Domain Transferable Knowledge. IEEE Transactions on Knowledge and Data Engineering (**TKDE**), 27(11), 3084-3097. 2015.

11. **Fei Wang**, Jimeng Sun. PSF: A Unified Patient Similarity Evaluation Framework through Metric Learning with Weak Supervision. IEEE Journal on Biomedical and Health Informatics (**JBHI**). May 19(3), 1053-1060. 2015.

12. **Fei Wang**. Adaptive Semi-Supervised Recursive Tree Partitioning: The ART Towards Large Scale Patient Indexing in Personalized Healthcare. Journal of Biomedical Informatics (**JBI**), June, Volume 55, 41-54. 2015.

13. Ming Lin, **Fei Wang**, Changshui Zhang. Large-Scale Eigenvector Approximation via Hilbert Space Embedding Nyström. **Pattern Recognition**. 48(5): 1904-1912. 2015.

14. Xiang Wang, **Fei Wang**, Jianying Hu, Robert Sorrentino. Towards Actionable Risk Stratification: A Bilinear Approach. Journal of Biomedical Informatics (**JBI**). Feb, Volume 53:147-55. 2015.

15. Nan Cao, Lu Lu, Yu-Ru Lin, **Fei Wang** and Zhen Wen. SocialHelix: Visual Analysis of Sentiment Divergence in Social Media. Journal of Visualization (**JOV**), May, Volume 18, Issue 2, 221-235. 2015.

16. **Fei Wang**, Jimeng Sun. Survey on Distance Metric Learning and Dimensionality Reduction. Data Mining and Knowledge Discovery (**DMKD**), March, Volume 29, Issue 2, 534-564. 2015.

17. **Fei Wang**, Ping Zhang, Nan Cao, Jianying Hu, Robert Sorrentino. Exploring the Associations between Drug Side-Effects and Therapeutic Indications. Journal of Biomedical Informatics (**JBI**). October, Volume 51, 15-23. 2014.

18. David Gotz, **Fei Wang**, Adam Perer. A Methodology for Interactive Mining and Visual Analysis of Clinical Event Patterns Using Electronic Health Record Data. Journal of Biomedical Informatics (**JBI**). vol. 48, pages 148-159. 2014.

19. Meng Jiang, Peng Cui, **Fei Wang**, Wenwu Zhu, Shiqiang Yang. Scalable Recommendation with Social Contextual Information. IEEE Transactions on Knowledge and Data Engineering (**TKDE**), vol. 26, no.11, 2789-2802. 2014.

20. **Fei Wang**, Noah Lee, Jianying Hu, Jimeng Sun, Shahram Ebadollahi. A Framework for Mining Signatures from Event Sequences and Its Applications in Healthcare Data. IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**). 35(2): 272-285. 2013.(Impact factor 5.694)

21. Jimeng Sun, **Fei Wang**, Jianying Hu, Shahram Edabollahi: Supervised patient similarity measure of heterogeneous patient records. **SIGKDD Explorations** 14(1): 16-24. 2012.

22. Marianthi Markatou, Prabani Kuruppumullage Don, Jianying Hu, **Fei Wang**, Jimeng Sun, Robert Sorrentino, Shahram Ebadollahi. Case-based reasoning in comparative effectiveness research. **IBM Journal of Development and Research**. 56(5): 4. 2012.

23. **Fei Wang**, Jimeng Sun, Shahram Ebadollahi. Composite Distance Metric Integration by Leveraging Multiple Experts' Inputs and its Application in Patient Similarity Assessment. Statistical Analysis and Data Mining (**SAM**). vol. 5, no. 1. 54-69. 2012.

24. Fanhua Shang, Licheng Jiao, Jiarong Shi, **Fei Wang**, Maoguo Gong. Fast Affinity Propagation Clustering: A Multilevel Approach. **Pattern Recognition**. vol. 45, no. 1. 474-486. 2012.

25. Fanhua Shang, L. C. Jiao, **Fei Wang**. Graph dual regularization non-negative matrix factorization for co-clustering. Pattern Recognition. vol. 45, no. 6. 2237-2250. 2012.

26. Gang Wang, **Fei Wang**, Tao Chen, Dit-Yan Yeung, Frederick H. Lochovsky. Solution Path for Manifold Regularized Semi-supervised Classification. IEEE Transactions on Systems, Man and Cybernetics. Part B (**TSMC-B**). vol. 42, no.2. 308-319. 2012.

27. **Fei Wang**, Bin Zhao, Changshui Zhang. Unsupervised Large Margin Discriminative Projection. IEEE Transactions on Neural Networks (**TNN**). vol. 22, no. 9. 1446-1456. 2011.

28. **Fei Wang**, Ping Li, Christian Konig, Muting Wan. Improving Clustering by Learning a Bi-Stochastic Data Similarity Matrix. Knowledge and Information Systems (**KAIS**). vol. 32, no. 2, 351-382. 2012.

29. Changshui Zhang, **Fei Wang**. Graph Based Semi-Supervised Learning. Frontiers of Electrical and Electronic Engineering in China. vol.6, no. 1. 17-26. 2011.

30. Dan Zhang, **Fei Wang**, Si Luo, Tao Li. Maximum Margin Multiple Instance Clustering with its applications to Image and Text Clustering. IEEE Transactions on Neural Networks (**TNN**). vol. 22, no. 5. 739-751. 2011.

31. **Fei Wang**. Semi-Supervised Metric Learning by Maximizing Constraint Margin. IEEE Transactions on System, Man and Cybernetics. Part B (**TSMC-B**). vol. 41, no. 4. 931-939. 2011.

32. Chenping Hou, Feiping Nie, **Fei Wang**, Changshui Zhang, Yi Wu. Semi-supervised Learning Using Negative Samples. IEEE Transactions on Neural Networks (**TNN**). vol. 22, no. 3. 420-432. 2011.

33. **Fei Wang**, Tao Li, Xin Wang, Shenghuo Zhu, Chris Ding. Community Discovery Using Nonnegative Matrix Factorization. Data Mining and Knowledge Discovery (**DMKD**). vol. 22, no. 3. 493-521. 2010

34. Shouchun Chen, **Fei Wang**, Yangqiu Song, Changshui Zhang. Semi-supervised Ranking Aggregation. Information Processing and Management (**IP&M**). vol. 47, no. 3. 415-425. 2010.

35. **Fei Wang**. A General Learning Framework Based on Local and Global Regularization. **Pattern Recognition**. vol. 43, no. 9, 3120-3129. 2010.

36. Changshui Zhang, **Fei Wang**. Graph Based Semi-Supervised Learning. **Artificial Life and Robotics**. vol. 14, no.4. 445-448. 2010. (invited).

37. **Fei Wang**, Bin Zhao, Changshui Zhang. Linear Time Maximum Margin Clustering. IEEE Transactions on Neural Networks (**TNN**). vol. 21, no.2. 319-332. 2010.

38. Peng Cui, **Fei Wang**, Shiqiang Yang. A Matrix-Based Approach to Unsupervised Human Action Categorization. IEEE Transactions on Multimedia (**TMM**). vol. 14, no. 1. 102-110. 2012.

39. Changshui Zhang, **Fei Wang**. A Multilevel Approach for Learning from Labeled and Unlabeled Data on Graphs. **Pattern Recognition**. vol. 43, no.6. 2301-2314. 2010.

40. Dan Zhang, **Fei Wang**, Zhenwei Shi, Changshui Zhang. Interactive Localized Content-Based Image Retrieval with Multiple Instance Active Learning. **Pattern Recognition**. Vol. 43, No. 2. 478-484. 2010.

41. Bin Zhao, **Fei Wang**, Changshui Zhang. Block Quantized Support Vector Ordinal Regression. IEEE Transactions on Neural Networks (**TNN**), Vol.20, No.5. 882-890. 2009.

42. **Fei Wang**, Changshui Zhang, Tao Li. Clustering with Local and Global Regularization. IEEE Transactions on Knowledge and Data Engineering (**TKDE**). Vol. 21, No. 12. 1665-1678. 2009.

43. Jingdong Wang, **Fei Wang**, Changshui Zhang, Helen C. Shen, Long Quan. Linear Neighborhood Propagation and Its Applications. IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**). Vol. 31, No. 9, 1600-1615. 2009. (Impact factor 5.694)

44. Peng Cui, Lifeng Sun, **Fei Wang**, Shiqiang Yang. Contextual Mixture Tracking. IEEE Transactions on Multimedia (**TMM**). Vol. 11, No.2, 333-341. 2009.

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

46. Gang Chen, **Fei Wang**, Changshui Zhang. Collaborative Filtering Using Orthogonal Nonnegative Matrix Tri-Factorizations. Information Processing & Management (**IP & M**). Vol. 45, No. 3. 368-379. 2009.

47. **Fei Wang**, Changshui Zhang. marginFace: A Novel Face Recognition Method Based on Maximizing the Average Neighborhood Margin. **Pattern Recognition**. Vol. 42, No. 11. 2863-2875. 2009.

48. **Fei Wang**, Xin Wang. Neighborhood Discriminant Tensor Embedding. **Neurocomputing**. Vol. 72, No. 7-9. 2035-2039. 2009.

49. **Fei Wang**, Changshui Zhang. Semi-Supervised Learning Based on Generalized Point Charge Models. IEEE Transactions on Neural Networks (**TNN**), Vol. 19, No.7, 1307-1311. 2008.

50. **Fei Wang**, Changshui Zhang. Label Propagation Through Linear Neighborhoods. IEEE Transactions on Knowledge and Data Engineering (**TKDE**), Vol.20, No.1, 55-67. 2008.

51. **Fei Wang**, Jingdong Wang, Changshui Zhang, James T. Kwok. Face Recognition Using Spectral Features. **Pattern Recognition**, Vol.40, No. 10, 2786-2797, 2007.

52. **Fei Wang**, Changshui Zhang. Robust Self-Tuning Semi-Supervised Learning. **Neurocomputing** 70, 2931-2939. 2007.

Conferences

1. Zihao Zhu, Changchang Yin, Buyue Qian, Yu Cheng, Jishang Wei, **Fei Wang**. Measuring Patient Similarities via A Deep Architecture with Medical Concept Embedding. In Proceedings of 2016 IEEE International Conference on Data Mining (**ICDM**). 2016.

2. Suyong Gupta, Wei Zhang, **Fei Wang**. Model Accuracy and Runtime Tradeoff in Distributed Deep Learning: A Systematic Study. Proceedings of IEEE International Conference on Data Mining (**ICDM**). To Appear. 2016.

3. **Fei Wang**, Ping Zhang, and Joel Dudley. Healthcare Data Mining with Matrix Models. In Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), pp. 2137-2138. ACM, 2016.

4. Jian Liang, Rui Lu, Changshui Zhang, **Fei Wang**. Predicting Seizures from Electroencephalography Recordings: A Knowledge Transfer Strategy. Proceedings of the IEEE International Conference on Health Informatics (**ICHI**). 2016. To Appear.

5. Lina Sulieman, Daniel Fabbri, **Fei Wang**, Jianying Hu, and Bradley Malin. Predicting Negative Events: Using Post-Discharge Data to Detect High-Risk Patients. Proceedings of the Annual Symposium on Medical Informatics (**AMIA**). 2016. To Appear.

6. Yu Cheng, **Fei Wang**, Ping Zhang, Jianying Hu. Risk Prediction with Electronic Health Records: A Deep Learning Approach. In Proceedings of the 16th SIAM International Conference on Data Mining (**SDM**). 2016. To Appear.

7. Linyun Yu, Peng Cui, **Fei Wang**, Chaoming Song, and Shiqiang Yang. From Micro to Macro: Uncovering and Predicting Information Cascading Process with Behavioral Dynamics. Proceedings of IEEE International Conference on Data Mining (**ICDM**). 559-568. 2015.

8. Robert Moskovitch, Colin Walsh, **Fei Wang**, George Hripcsak, and Nicholas Tatonetti. Outcomes Prediction via Time Intervals Related Patterns. Proceedings of IEEE International Conference on Data Mining (**ICDM**). 919-924. 2015.

9. Zhengxing Huang, Wei Dong, **Fei Wang**, Huilong Duan. Medical Inpatient Journey Modeling and Clustering: A Bayesian Hidden Markov Model Based Approach. Proceedings of the Annual Symposium on Medical Informatics (**AMIA**)., 649-658. 2015.

10. Cristina Soguero-Ruiz, **Fei Wang**, Robert Jenssen, Knut Magne Augestad, Jose-LuisRojo Alvarez, Inmaculada Mora Jimenez, Rolv-Ole Lindsetmo, Stein Olav Skrovseth. Data-driven Temporal Prediction of Surgical Site Infection. Proceedings of the Annual Symposium on Medical Informatics (**AMIA**)., 1164-1173. 2015.

11. Mingdong Ou, Peng Cui, **Fei Wang** and Jun Wang. Non-transitive Hashing with Latent Similarity Components. Proceedings of the 21th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 895-904. 2015.

12. Zhaonan Sun, **Fei Wang** and Jianying Hu. LINKAGE: An Approach for Comprehensive Risk Prediction for Care Management. Proceedings of the 21th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 1145-1154. 2015.

13. Chuanren Liu, **Fei Wang**, Jianying Hu and Hui Xiong. Temporal Phenotyping from Longitudinal Electronic Health Records: A Graph Based Framework. Proceedings of the 21th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 705-714. 2015.

14. Kenney Ng, Jimeng Sun, Jianying Hu, **Fei Wang**. Personalized Predictive Modeling and Risk Factor Identification using Patient Similarity. AMIA Summit on Clinical Research Informatics (**AMIA CRI**), 132-136. 2015.

15. Mingdong Ou, Peng Cui, Jun Wang, **Fei Wang** and Wenwu Zhu. Probabilistic Attributed Hashing. Proceedings of the 29th AAAI Conference (**AAAI**), 2015.

16. Peng Cui, Tianyang Zhang, **Fei Wang** and Peng He. Perceiving Group Themes from Collective Social and Behavioral Information. Proceedings of the 29th AAAI Conference (**AAAI**), 2894-2900. 2015.

17. Houping Xiao, Yaliang Li, Jing Gao, **Fei Wang**, Liang Ge, Wei Fan, Long Vu and Deepak Turaga. Believe It Today or Tomorrow? Detecting Untrustworthy Information from Dynamic Multi-Source Data. Proceedings of the 15th SIAM International Conference on Data Mining (**SDM**), 397-405. 2015.

18. Ziqi Liu, **Fei Wang** and Qinghua Zheng. Modeling Users' Adoption Behaviors with Social Selection and Influence. Proceedings of the 15th SIAM International Conference on Data Mining (**SDM**), 253-261. 2015.

19. Ping Zhang, **Fei Wang**, Jianying Hu. Towards Drug Repositioning: A Unified Computational Framework for Integrating Multiple Aspects of Drug Similarity and Disease Similarity. Proceedings of the American Medical Informatics Association Annual Symposium (**AMIA**), 1258?1267. 2014.

20. Xiang Wang, **Fei Wang**, Jianying Hu, Robert Sorrentino. Exploring Joint Disease Risk Prediction. Proceedings of the American Medical Informatics Association Annual Symposium (**AMIA**), 1180?1187. 2014.

21. **Fei Wang**, Ping Zhang, Xiang Wang, Jianying Hu. Clinical Risk Prediction by Exploring High-Order Feature Correlations Proceedings of the American Medical Informatics Association Annual Symposium (**AMIA**), 1170-1179. 2014.

22. Gregor Stiglic, **Fei Wang**, Adam Davey, Zoran Obradovic. Pediatric Readmission Classification Using Stacked Regularized Logistic Regression Models Proceedings of the American Medical Informatics Association Annual Symposium (**AMIA**), 1072-1081. 2014.

23. Meng Jiang, Peng Cui, Fei Wang, Xinran Yu, Shiqiang Yang. FEMA: Flexible Evolutionary Multi-faceted Analysis for Dynamic Behavioral Pattern Discovery. Proceedings of the 20th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 1186-1195. 2014.

24. Ting Wang, Dashun Wang, **Fei Wang**. Quantifying Herding Effects in Crowd Wisdom. Proceedings of the 20th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 1087-1096. 2014.

25. Xiang Wang, David Sontag, **Fei Wang**. Unsupervised Learning of Disease Progression Models. Proceedings of the 20th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 85-94. 2014.

26. **Fei Wang**, Ping Zhang, Buyue Qian, Xiang Wang, Ian Davidson. Clinical Risk Prediction with Multilinear Sparse Logistic Regression. Proceedings of the 20th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 145-154. 2014.

27. Jiayu Zhou, **Fei Wang**g, Jianying Hu, Jieping Ye. From Micro to Macro: Data Driven Phenotyping by Densification of Longitudinal Electronic Medical Records. Proceedings of the 20th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**)., 135-144. 2014.

28. Yiqin Yu, Haifeng Liu, Jing Li, Xiang Li, Jing Mei, Guotong Xie, Adam Perer, **Fei Wang**, Jianying Hu. Care Pathway Workbench: Evidence Harmonization from Guideline and Data. Stud. Health Technol. Inform.; 205:23-27. 2014

29. Ping Zhang, **Fei Wang**, Jianying Hu, Robert Sorrentino. Towards Personalized Medicine: Leveraging Patient Similarity and Drug Similarity Analytics. Proceedings of American Medical Informatics Association Annual Symposium Translational Summit (**AMIA TBI**), 132-136.2014.

30. Ziqi Liu, Qinghua Zheng, **Fei Wang**, Zhenhua Tian, Bo Li. A Dynamic Nonparametric Model for Characterizing the Topical Communities in Social Streams. Proceedings of the 14th SIAM Data Mining Conference (**SDM**), 379-387. 2014.

31. Yu Cheng, Zhengzhang Chen, Hongliang Fei, **Fei Wang**, Alok Choudhary. Batch Mode Active Learning with Hierarchical-Structured Embedded Variance. Proceedings of the 14th SIAM Data Mining Conference (**SDM**), 10-18. 2014.

32. Xiang Wang, Jun Wang, Buyue Qian, Fei Wang, Ian Davidson: Self-Taught Spectral Clustering via Constraint Augmentation. Proceedings of the 14th SIAM Data Mining Conference (**SDM**), 416-424. 2014.

33. Ting Wang, **Fei Wang**, Xin Hu. Kaleido: Network Traffic Attribution using Multifaceted Footprinting Proceedings of the 14th SIAM Data Mining Conference (**SDM**), 695-703. 2014.

34. Adam Perer, **Fei Wang**. Frequence: Interactive Mining and Visualization of Temporal Frequent Event Sequences. Proceedings of 19th International Conference on Intelligent User Interface (**IUI**), 153-162. 2014

35. Xiang Wang, **Fei Wang**, and Jianying Hu. A Multi-task Learning Framework for Joint Disease Risk Prediction and Comorbidity Discovery. In Pattern Recognition (**ICPR**), 2014 22nd International Conference on, pp. 220-225. IEEE, 2014.

36. **Fei Wang**, Jiayu Zhou, and Jianying Hu. DensityTransfer: A Data Driven Approach for Imputing Electronic Health Records. In Pattern Recognition (**ICPR**), 2014 22nd International Conference on, pp. 2763-2768. IEEE, 2014.

37. Shimei Pan, Michelle X. Zhou, Yangqiu Song, Weihong Qian, **Fei Wang**, Shixia Liu: Optimizing temporal topic segmentation for intelligent text visualization. Proceedings of 18th International Conference on Intelligent User Interfaces (**IUI**), 339-350. 2013.

38. Ping Zhang, **Fei Wang**, Jianying Hu, Robert Sorrentino. Exploring the Relationship Between Drug Side-Effects and Therapeutic Indications. Proceedings of American Medical Informatics Association Annual Symposium (**AMIA**), 1568-1577. 2013.

39. Xiang Wang, **Fei Wang**, Jun Wang, Buyue Qian, Jianying Hu. Exploring Patient Risk Groups with Incomplete Knowledge. The 13th IEEE International Conference on Data Mining (**ICDM**), 1223-1228. 2013.

40. Yuheng Hu, **Fei Wang**, Subbarao Kambhampati. Listen to the Crowd: Automated Analysis of Live Events via Aggregated Twitter Sentiment. Proceedings of The 23rd International Joint Conference on Artificial Intelligence (**IJCAI**). 2640-2646. 2013

41. Buyue Qian, Xiang Wang, **Fei Wang**, Hongfei Li, Ian Davidson. Active Learning from Relative Queries. Proceedings of The 23rd International Joint Conference on Artificial Intelligence (**IJCAI**). 1614-1620. 2013

42. Peng Cui, Shifei Jin, Linyun Yu, **Fei Wang**, Shiqiang Yang. Cascading Outbreak Prediction in Networks: A Data-Driven Approach. Proceedings of the 19th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**). 901-909. 2013.

43. Mingdong Ou, Peng Cui, **Fei Wang**, Jun Wang, Shiqiang Yang. Comparing Apples to Oranges: A Scalable Solution with Heterogeneous Hashing. Proceedings of the 19th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**). 230-238. 2013.

44. Jiayu Zhou, Zhaosong Lu, Jimeng Sun, Lei Yuan, **Fei Wang**, Jieping Ye. FeaFiner: Biomarker Identification from Medical Data through Feature Generalization and Selection. Proceedings of the 19th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**). 1034-1042. 2013.

45. **Fei Wang**, Noah Lee, Jianying Hu, Jimeng Sun, Shahram Ebadollahi. Towards Heterogeneous Temporal Clinical Event Pattern Discovery:A Convolutional Approach. Proceedings of the 18th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**). 453-461. 2012.

46. Dijun Luo, **Fei Wang**, Jimeng Sun, Marianthi Markatou, Jianying Hu, Shahram Ebadollahi. SOR: Scalable Orthogonal Regression for Low-Redundancy Feature Selection and its Healthcare Applications. Proceedings of the 12th SIAM Data Mining Conference (**SDM**). Anaheim, California. 576-587. 2012.

47. David Gotz, Harry Starvropoulos, Jimeng Sun, **Fei Wang**. ICDA: A Platform for Intelligent Care Delivery Analytics. American Medical Informatics Association Annual Symposium (**AMIA**), 264-273. Chicago, IL. 2012.

48. Jimeng Sun, Jianying Hu, Dijun Luo, Marianthi Markatou, **Fei Wang**, Shahram Ebadollahi, Steven E. Steinhubl, Zahra Daar, Walter F. Stewart. Combining Knowledge and Data Driven Insights for Identifying Risk Factors using Electronic Health Records. American Medical Informatics Association Annual Symposium (**AMIA**), Chicago, IL. 901-910. 2012.

49. Jianying Hu, **Fei Wang**, Jimeng Sun, Robert Sorrentino, Shahram Ebadollahi. A Healthcare Utilization Analysis Framework for Hot Spotting and Contextual Anomaly Detection. American Medical Informatics Association Annual Symposium (**AMIA**), 360-369. Chicago, IL. 2012.

50. Meng jiang, Peng Cui, **Fei Wang**, Qiang Yang, Shiqiang Yang. Social Recommendation Across Multiple Relational Domains. The 21st ACM International Conference on Information and Knowledge Management (**CIKM**). 1422-1431. Maui, Hawaii, USA. 2012.

51. Meng jiang, Peng Cui, Rui Liu, Qiang Yang, **Fei Wang**, Shiqiang Yang. Social Contextual Recommendation. The 21st ACM International Conference on Information and Knowledge Management (**CIKM**). 45-54. Maui, Hawaii, USA. 2012.

52. Yuheng Hu, Ajita John, **Fei Wang**, Subbarao Kambhampati. ET-LDA: Joint Topic Modeling for Aligning Events and their Twitter Feedback. Proceedings of The 26th AAAI Conference on Artificial Intelligence (**AAAI**). 59-65. Toronto, Canada. 2012.

53. Fanhua Shang, Licheng Jiao, **Fei Wang**. Learning Spectral Embedding via Iterative Eigenvalue Thresholding. The 21st ACM International Conference on Information and Knowledge Management (**CIKM**). 1507-1511. Maui, Hawaii, USA. 2012.

54. Fanhua Shang, Licheng Jiao, **Fei Wang**. Semi-supervised Learning with Mixed Knowledge Information. Proceedings of the 18th ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (**KDD**). 732-740. Beijing, China. 2012.

55. **Fei Wang**, Jianying Hu, and Jimeng Sun. **Medical Prognosis Based on Patient Similarity and Expert Feedback**. In Pattern Recognition, 2012 21st International Conference on (**ICPR**), pp. 1799-1802. IEEE, 2012.

56. Fanhua Shang, Licheng Jiao, Yuanyuan Liu, **Fei Wang**. Learning Spectral Embedding for Semi-Supervised Clustering. Proceedings of the 11th IEEE International Conference on Data Mining (**ICDM**). Vancouver, Canada. 597-606. 2011.

57. Yuheng Hu, Ajita John, Doree Seligmann, **Fei Wang**. What were the Tweets about? Topical Associations between Public Events and Twitter Feeds. Proceedings of the Sixth International AAAI Conference on Weblogs and Social Media (**ICWSM**). Dublin, Ireland. 154-161. 2012.

58. **Fei Wang**, Noah Lee, Jimeng Sun, Jianying Hu, Shahram Ebadollahi. Automatic Group Sparse Coding. Proceedings of The 25th AAAI Conference on Artificial Intelligence (**AAAI**). 495-500. San Francisco, California. 2011.

59. Noah Lee, Andrew Laine, Jianying Hu, **Fei Wang**, Jimeng Sun, Shahram Ebadollahi. Mining Electronic Medical Records to Explore the Linkage Between Healthcare Resource Utilization and Disease Severity in Diabetic Patients. IEEE Conference on Healthcare Informatics, Imaging and Systems Biology (**HISB**). San Jose, CA. 250-257. 2011.

60. **Fei Wang**, Jimeng Sun, Shahram Ebadollahi. Integrating Distance Metrics Learned from Multiple Experts and its Application in Inter-Patient Similarity Assessment. The 11th SIAM International Conference on Data Mining (**SDM**). Mesa, Arizona. 59-70. 2011.

61. **Fei Wang**, Jimeng Sun, Jianying Hu, Shahram Ebadollahi. iMet: Interactive Metric Learning in Healthcare Applications. The 11th SIAM International Conference on Data Mining (**SDM**). 944-955. Mesa, Arizona. 2011.

62. Peng Cui, **Fei Wang**, Shi-Qiang Yang. Item-Level Social Influence Prediction with Probabilistic Hybrid Factor Matrix Factorization. Proceedings of The 25th AAAI Conference on Artificial Intelligence (**AAAI**). 331-336. San Francisco, California. 2011.

63. Peng Cui, **Fei Wang**, Shao-Wei Liu, Ming-Dong Ou, Shi-Qiang Yang. Who Should Share What? Item-level Social Influence Prediction for Users and Posts Ranking. Proceedings of The 34th Int'l ACM SIGIR Conference on Research & Development in Information Retrieval (**SIGIR**). Beijing, China. 185-194. 2011.

64. **Fei Wang**, Hanghang Tong, Ching-Yung Lin. Towards Evolutionary Nonnegative Matrix Factorization. Proceedings of The 25th AAAI Conference on Artificial Intelligence (**AAAI**). 501-506. San Francisco, California. 2011.

65. Dan Zhang, **Fei Wang**, Luo Si. Composite Hashing with Multiple Information Sources. Proceedings of The 34th Int'l ACM SIGIR Conference on Research & Development in Information Retrieval (**SIGIR**). Beijing, China. 225-234. 2011.

66. **Fei Wang**, Chenhao Tan, Christian Konig, Ping Li. Online Nonnegative Matrix Factorization for Document Clustering. The 11th SIAM International Conference on Data Mining (**SDM**). Mesa, Arizona. 908-919. 2011.

67. **Fei Wang**, Ping Li. Efficient Non-Negative Matrix Factorization with Random Projections. The 10th SIAM International Conference on Data Mining (**SDM**). 281-292. Columbus, Ohio. 2010.

68. Jiawei Lv, Jianwen Zhang, **Fei Wang**, Zheng Wang, Changshui Zhang. Compressed Learning with Regular Concept. The 21st International Conference on Algorithmic Learning Theory (**ALT**). Canberra, Australia. 2010. Lecture Notes in Computer Science, 2010, Volume 6331/2010. 163-178.

69. **Fei Wang**, Ping Li, Christian Konig. Learning a Bi-Stochastic Similarity Matrix. The 10th IEEE International Conference on Data Mining (**ICDM**). Sydney, Australia. 551-560. 2010.

70. **Fei Wang**, Ping Li. Compressed Non-Negative Sparse Coding. Proceedings of The 10th IEEE International Conference on Data Mining (**ICDM**). Sydney, Australia. 1103-1108. 2010.

71. **Fei Wang**, Jimeng Sun, Tao Li, Nikos Anerousis. Two Heads Better Than One: Metric+Active Learning and Its Applications for IT Service Classification. The 8th IEEE International Conference on Data Mining (**ICDM**). Miami, Florida. 1022-1027. 2009.

72. **Fei Wang**, Xin Wang, Bo Shao, Tao Li, Mitsunori Ogihara. Tag Integrated Multi-label Music Style Classification with Hypergraphs. The 10th International Society for Music Information Retrieval Conference (**ISMIR**). 363-368. Kobe, Japan. 2009.

73. **Fei Wang**, Xin Wang, Tao Li. Semi-Supervised Multi-Taks Learning with Task Regularizations. The 8th IEEE International Conference on Data Mining (**ICDM**). Miami, Florida. 562-568. 2009.

74. **Fei Wang**, Xin Wang, Tao Li. Maximum Margin Clustering on Data Manifolds. The 8th IEEE International Conference on Data Mining (**ICDM**). Miami, Florida. 1028-1033. 2009.

75. **Fei Wang**, Xin Wang, Tao Li. Generalized Cluster Aggregation. The 21st International Joint Conference on Artificial Intelligence (**IJCAI**). Pasadena, California, USA. 1279-1284. 2009.

76. **Fei Wang**, Bin Zhang, Ta-Hsin Li, Wen jun Yin, Jin Dong, Tao Li. Preference Learning with Extreme Examples. The 21st International Joint Conference on Artificial Intelligence (**IJCAI**). Pasadena, California, USA. 1285-1290. 2009.

77. Dan Zhang, **Fei Wang**, Luo Si, Tao Li. Maximum Margin Multiple Instance Clustering. The 21st International Joint Conference on Artificial Intelligence (**IJCAI**). Pasadena, California, USA. 1339-1344. 2009.

78. **Fei Wang**, Xin Wang and Tao Li. Beyond the Graphs: Semi-Parametric Semi-Supervised Discriminant Analysis. Proceedings of the 27th IEEE Computer Society Conference on Computer Vision and Pattern Recognition (**CVPR**). 2113-2120. Miami, Florida, USA, 2009.

79. Bin Zhao, James Kwok, **Fei Wang**, Changshui Zhang. Unsupervised Maximum Margin Feature Selection with Manifold Regularization. IEEE Computer Scociety Conference on Computer Vision and Pattern Recognition (**CVPR**). 888-895. Miami, Florida, USA. 2009.

80. Gang Chen, Jianwen Zhang, **Fei Wang**, Changshui Zhang. Efficient Multi-Label Learning with Hypergraph Regularization. IEEE Computer Scociety Conference on Computer Vision and Pattern Recognition (**CVPR**). 1658-1665. Miami, Florida, USA. 2009.

81. **Fei Wang**, Chris Ding, Tao Li. Integrated KL (K-means - Laplacian) Clustering: A New Clustering Approach by Combining Attribute Data and Pairwise Relations. The 9th SIAM Conference on Data Mining (**SDM**). 38-48. Sparks, Nevada. 2009.

82. Bin Zhao, **Fei Wang**, Changshui Zhang. CutS3VM: A Fast Semi-Supervised SVM Algorithm. Proceedings of The 14th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (**KDD**), 830-838. Las Vegas, Nevada, USA. 2008.

83. Bin Zhao, **Fei Wang**, Changshui Zhang. Efficient Multi-class Maximum Margin Clustering. Proceedings of The 25th International Conference on Machine Learning (**ICML**), 1248-1255. 2008.

84. Bin Zhao, **Fei Wang**, Changshui Zhang. Maximum Margin Embedding. The 8th IEEE International Conference on Data Mining (**ICDM**). 1127-1132 Pisa, Italy. 15-19, Dec. 2008.

85. Bin Zhao, **Fei Wang**, Changshui Zhang, Yangqiu Song. Active Model Selection for Graph Based Semi-Supervised Learning. The 33rd International Conference on Acoustics, Speech, and Signal Processing (**ICASSP**), Las Vegas, Nevada, 1881-1884. 2008.

86. **Fei Wang**, Shouchun Chen, Tao Li, Changshui Zhang. Semi-Supervised Metric Learning by Maximizing Constraint Margin. Proceedings of The ACM 17th Conference on Information and Knowledge Management (**CIKM**), 1457-1458. Napa Valley, California, USA. 2008.

87. Shouchun Chen, **Fei Wang**, Yangqiu Song, Changshui Zhang. Semi-supervised Ranking Aggregation. Proceedings of The ACM 17th Conference on Information and Knowledge Management (**CIKM**), 1427-1428. Napa Valley, California, USA. 2008.

88. Peng Cui, **Fei Wang**, Li-Feng Sun, Shi-Qiang Yang. A Joint Matrix Factorization Approach to Unsupervised Action Categorization. The 8th IEEE International Conference on Data Mining (**ICDM**). 767-772. Pisa, Italy. 15-19, 2008.

89. Dan Zhang, **Fei Wang**, Zhenwei Shi, Changshui Zhang. Localized Content-Based Image Retrieval Using Multiple Instance Active Learning. Proceedings of The 15th IEEE International Conference on Image Processing (**ICIP**), 921-924. 2008.

90. **Fei Wang**, Changshui Zhang. On Discriminative Semi-supervised Classification. Proceedings of The 23rd AAAI Conference on Artificial Intelligence (**AAAI**), 720-725. July 13-17, Chicago, Illinois, USA. 2008.

91. **Fei Wang**, Tao Li, Gang Wang, Changshui Zhang. Semi-supervised Classification Using Local and Global Regularization. Proceedings of The 23rd AAAI Conference on Artificial Intelligence (**AAAI**), 726-731. July 13-17, Chicago, Illinois, USA. 2008.

92. Bin Zhang, **Fei Wang**, Ta-Hsin Li, Wen jun Yin, Jin Dong. Classification by Discriminative Regularization. Proceedings of The 23rd AAAI Conference on Artificial Intelligence (**AAAI**), 746-751. July 13-17, Chicago, Illinois, USA. 2008.

93. Dan Zhang, **Fei Wang**, Changshui Zhang, Tao Li. Multi-view Local Learning. Proceedings of The 23rd AAAI Conference on Artificial Intelligence (**AAAI**), 752-757. July 13-17, Chicago, Illinois, USA. 2008.

94. Bin Zhao, **Fei Wang**, Changshui Zhang. Efficient Maximum Margin Clustering via the Cutting Plane Algorithm. The 8th SIAM International Conference on Data Mining (**SDM**), 751-762. Hyatt Regency Hotel, Atlanta, Georgia. 2008.

95. **Fei Wang**, Tao Li, Changshui Zhang. Semi-Supervised Clustering via Matrix Factorization. The 8th SIAM International Conference on Data Mining (**SDM**), 1-12. Hyatt Regency Hotel, Atlanta, Georgia. 2008.

96. Gang Chen, Yangqiu Song, **Fei Wang**, Changshui Zhang. Semi-supervised Multi-label Learning by Solving a Sylvester Equation. The 8th SIAM Conference on Data Mining (**SDM**), 410-419. Hyatt Regency Hotel, Atlanta, Georgia. 2008.

97. Dan Zhang, Jingdong Wang, **Fei Wang**, Changshui Zhang. Semi-Supervised Classification with Universum. The 8th SIAM Conference on Data Mining (**SDM**), 323-333. Hyatt Regency Hotel, Atlanta, Georgia. 2008.

98. Liang Xiong, **Fei Wang**, Changshui Zhang. Multilevel Belief Propagation for Fast Inference on Markov Random Fields. Proceedings of the 7th IEEE International Conference on Data Mining (**ICDM**), 371-380, Omaha, USA. 2007.

99. **Fei Wang**, Changshui Zhang. Fast Multilevel Transduction on Graphs. The 7th SIAM Conference on Data Mining (**SDM**). Radisson University Hotel, Minneapolis, Minnesota. 2007.

100. **Fei Wang**, Changshui Zhang, Tao Li. Regularized Clustering for Documents. Proceedings of the 30th Annual International ACM SIGIR Conference on Research & Development in Information Retrieval (**SIGIR**), 95-102. Amsterdam. 2007.

101. **Fei Wang**, Changshui Zhang, Tao Li. Clustering with Local and Global Regularization. Proceedings of the 22nd National Conference on Artificial Intelligence (**AAAI**), 657-662. Vancouver, Canada. 2007.

102. **Fei Wang**, Changshui Zhang. Feature Extraction by Maximizing the Average Neighborhood Margin. Proceedings of the 25th IEEE Computer Society Conference on Computer Vision and Pattern Recognition (**CVPR**), 1-8. Minneapolis, Minnesota, 2007.

103. **Fei Wang**, Xin Wang, Tao Li. Efficient Label Propagation for Interactive Image Segmentation. The 6th International Conference on Machine Learning and Applications (**ICMLA**), Cincinnati, Ohio. 136-141. December 13-15, 2007.

104. **Fei Wang**, Tao Li. Gene Selection via Matrix Factorization. Proceedings of the 7th IEEE International Symposium on Bioinformatics & Bioengineering (**BIBE**), 1046-1050. Harvard Medical School Conference Center, Cambridge-Boston, Massachusetts, USA. 2007.

105. Liang Xiong, **Fei Wang**, Changshui Zhang. Semi-Definite Manifold Alignment. Proceedings of the 18th European Conference on Machine Learning (**ECML**), 773-781. Warsaw, Poland. 2007.

106. **Fei Wang**, Shijun Wang, Changshui Zhang, Ole Winther. Semi-Supervised Mean Fields. The 11th International Conference on Artificial Intelligence and Statistics (**AISTATS**). JMLR Workshop and Conference Proceedings Volume 2: AISTATS 2007, pages: 596-603. San Juan, Puerto Rico. 2007.

107. Bin Zhao, **Fei Wang**, Changshui Zhang. Smoothness Maximization via Gradient Descents. Proceedings of the 32nd International Conference on Acoustics, Speech, and Signal Processing (**ICASSP**), vol.2, 609-612. Honolulu, Hawaii. 2007.

108. **Fei Wang**, Sheng Ma, Liuzhong Yang, Tao Li. Recommendation on Item Graphs. Proceedings of the 6th IEEE International Conference on Data Mining (**ICDM**), 1119-1123. Hongkong, China. 2006.

109. **Fei Wang**, Jingdong Wang, Changshui Zhang and Helen C. Shen. Semi-Supervised Classification Using Linear Neighborhood Propagation. Proceedings of the 24th IEEE Computer Society Conference on Computer Vision and Pattern Recognition (**CVPR**), vol. 1, 160-167. New York University, New York, New York, USA, 2006.

110. **Fei Wang**, Changshui Zhang. Label Propagation Through Linear Neighborhoods. Proceedings of the 23rd International Conference on Machine Learning (**ICML**), 985-992. Carnegie Mellon University, Pittsburgh, Pennsylvania, USA, 2006.

111. **Fei Wang**, Jingdong Wang and Changshui Zhang. Spectral Feature Analysis. Neural Networks, 2005. Proceedings of the 2005 IEEE International Joint Conference on (**IJCNN**), Volume 3, 1971 - 1976. Montreal, Canada, 2005.

112. **Fei Wang**, Changshui Zhang. Spectral Clustering for Time Series. In: Lecture Notes in Computer Science, Proceedings, Part I, Springer-Verlag GmbH, ISBN 3-540-28757-4, vol. 3686/2005: 345-354. Third International Conference on Advances in Pattern Recognition and Data Mining (**ICAPR**), Bath, UK, 2005.

PROFESSIONAL ACTIVITIES

Conference/Workshop Chair/Co-Chair

- Publication Chair. The IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies. 2016.
- Student Travel Award Co-Chair. The IEEE International Conference on Bioinformatics and Biomedicine (BIBM). 2015.
- Local Arrangement Co-Chair. The 15th IEEE International Conferenece on Data Mining (ICDM). 2015.
- Program Co-Chair. The 2015 IEEE International Conference on Health Informatics (ICHI). 2015.
- Program Co-Chair. SDM Workshop on Data Mining for Medicine and Healthcare (DMMH). 2013, 2014, 2015.
- Program Co-Chair, AMIA Workshop on Data Mining for Medical Informatics (DMMI), 2014, 2015.
- Program Co-Chair, KDD Workshop on Connected Health at Big Data Era (BigCHat), 2014, 2015.
- Program Co-Chair, ICDM 2014 Workshop on Biological Data Mining and Its Applications in Healthcare (BioDM), 2014, 2015.
- Program Co-Chair, CIKM 2014 Workshop on Interactive Mining for Big Data (ImBig), 2014
- Program Co-Chair, The Third IEEE/ASE International Conference on Big Data Science and Computing (BigDataScience), 2014.
- Program Co-Chair, ICDM Workshop on Mining and Understanding Big Data (BigMUD), 2013.
- Program Co-Chair. ICDM Workshop on Optimization Based Techniques for Emerging Data Mining Problems (OEDM), 2009, 2010, 2011.
- Program Co-Chair. ICDM Workshop on Data Mining Techniques for Computational Collective Intelligence (DMCCI), 2011.
- Program Co-Chair. KDD Workshop on Data Mining for Medicine and Healthcare (DMMH), 2011.
- Program Co-Chair. ACM MM Workshop on Social and Networked Media Access, 2011.
- Local Arrangement Co-Chair. The 8th International Conference on Machine Learning and Applications (ICMLA), 2009.
- Publicity Chair, KDD Workshop on Data Mining using Matrices and Tensors, 2009.

Senior Program Committee/Area Chair

- The ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2016)
- The IEEE International Conference on Data Mining (ICDM 2015)
- The International Joint Conference on Artificial Intelligence (IJCAI 2015, 2016)
- The SIAM Conference on Data Mining (SDM 2015, 2016)
- The IEEE International Conference on Health Informatics (ICHI 2014)

Program Committee

- Program Committee, The European Conference on Machine Learning and Principles and Practice

of Knowledge Discovery in Databases (ECML/PKDD) 2013-2016
- Program Committee, The ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2012-2015
- Program Committee, The IEEE International Conference on Data Mining (ICDM) 2009, 2011-2014, 2016
- Program Committee, The SIAM International Conference on Data Mining (SDM) 2010-2014
- Program Committee, The International Conference on Machine Learning (ICML) 2014
- Program Committee, The IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM) 2010, 2013
- Program Committee, The 23rd International Joint Conference on Artificial Intelligence (IJCAI) 2011, 2013
- Program Committee, The ACM International Conference on Knowledge Discovery and Data Mining (CIKM) 2013
- Program Committee, The Asian Conference on Machine Learning (ACML) 2010, 2011
- Program Committee, The Pacific-Rim Symposium on Image and Video Technology (PSIVT 2010)
- Program Committee, International Workshop on Knowledge Discovery Using Cloud and Distributed Computing Platforms (KDCloud 2010)
- Program Committee, The 2nd Workshop on Large-scale Data Mining: Theory and Applications (LDMTA) (in Conjunction with KDD 2010), 2010.
- Program Committee, The 9th International Conference on Machine Learning and Applications (ICMLA), 2010.
- Program Committee, The 20th International Conference on Pattern Recognition (ICPR), 2010.
- Program Committee, KDD Workshop on Data Mining using Matrices and Tensors, 2009.
- Program Committee, The 1st Asian Conference on Machine Learning. 2009.
- Technical Program Committee, IEEE International Joint Conference on Neural Networks, 2009.
- International Program Committee, The 6th International Conference on Informatics in Control, Automation and Robotics, 2009.
- International Program Committee, The 7th International Conference on Machine Learning and Applications, 2008.
- Technical Program Committee, IEEE World Congress on Computational Intelligence, 2006, 2008.
- Program Committee, KDD Workshop on Data Mining using Matrices and Tensors, 2008.
- International Program Committee, The 6th International Conference on Machine Learning and Applications, 2007.
- Technical Program Committee, IEEE International Joint Conference on Neural Networks, 2007.

Editorial Board and Guest Editor
- Associate Editor. Journal of Health Informatics Research. Since 2017.
- Associate Editor. Smart Health. Since 2017.
- Action Editor. Journal of Data Mining and Knowledge Discovery. Since 2016.
- Editorial Board. International Journal of Big Data and Analytics in Healthcare. Since 2016.
- Editorial Board. Pattern Recognition. Since 2016.
- Editorial Board. Journal of Data Mining and Knowledge Discovery. 2015-2016.
- Guest Editor. Journal of Biomedical Informatics Special Issue on Mining Temporal Biomedical Data. 2016.
- Guest Editor. JASIST Special Issue on Biomedical Information Retrieval. 2016.
- Guest Editor. IEEE Transactions on Big Data Special Issue on Analytics with Big Medical Data. 2015.
- Guest Editor. IEEE/ACM Transactions on Computational Biology and Bioinformatics Special Issue on Biological Data Mining and Its Applications in Healthcare. 2015.
- Guest Editor. ACM Transactions on Knowledge Discovery and Data Mining Special Issue on Connected Health at Big Data Era. 2015
- Guest Editor. Journal of Data Mining and Knowledge Discovery Special Issue on Data Mining

for Medicine and Healthcare. 2014
- Guest Editor. Journal of Data Mining and Knowledge Discovery Special Issue on Data Mining Technologies for Computational Social Science, 2011
- Guest Editor. Journal of Information Retrieval Special Issue on Information Retrieval for Social Media, 2011
- Guest Editor. Journal of Data Mining and Knowledge Discovery Special Issue on Data Mining with Matrices, Graphs and Tensors, 2010

Journal Refree
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Signal Processing
- IEEE Transactions on Neural Networks and Learning System
- IEEE Transactions on Big Data
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Information Forensics and Security
- IEEE Transactions on Systems, Man and Cybernetics. Part B
- ACM Transactions on Sensor Networks
- ACM Transactions on Multimedia Computing Communications and Applications
- ACM Transactions on Knowledge Discovery from Data
- ACM Transactions on Information Science and Technology
- Nature Scientific Reports
- Artificial Intelligence
- Journal of Machine Learning Research
- Journal of American Medical Informatics Association
- Statistical Analysis and Data Mining
- Statistics in Medicine
- BMC Medical Informatics and Decision Making
- Data Mining and Knowledge Discovery
- Information Processing & Management
- Computational Intelligence
- Information Science
- Neurocomputing
- Pattern Recognition
- International Journal of Pattern Recognition and Artificial Intelligence
- Frontiers of Computer Science in China
- World Wide Web Journal
- Neural Computing and Applications.
- Neural Processing Letters.

Panelist: NSF IIS 2010, 2014, 2016

Teaching
- Spring 2015. Big Data Analytics. Cross listed for Undergraduate and Graduate students.
- Fall 2015. Data Structure. Undergraduate students.

Student Mentoring
1. Chuanren Liu, Rutgers University, 2014. Temporal Phenotyping for Electronic Medical Records. Now Assistant Professor in Drexel University.

2. Jiayu Zhou, Arizona State University, 2013. Feature Densification for Electronic Medical Records. Now Assistant Professor in Michigan State University.

3. Yuheng Hu, Arizona State University, 2012. Aggregated Twitter Sentiment Analysis. Now Assistant Professor in University of Illinois at Chicago.

4. Meng Jiang, Tsinghua University, 2012. Social Recommendation. Now Postdoctoral Research in UIUC.

5. Mingdong Ou, Tsinghua University, 2012. Heterogeneous Hashing.

6. Fanhua Shang. Xidian University.2011. Semi-supervised Learning with Mixed Knowledge Information.

7. Dijun Luo. University of Texas at Arlington, 2011. Scalable Orthogonal Regression for Feature Selection.

8. Noah Lee, Columbia University, 2010. Convolutional NMF for Clinical Pattern Discovery.

9. Liang Xiong, Carnegie Mellon University, 2009. Manifold Alignment. Now at Facebook.

10. Xin Wang, Florida International University, 2008. Local Tensor Analysis.

11. Bin Zhao, Tsinghua University, 2008. Large Margin Clustering.