

Feng Chen

Department of Computer Science, Erik Jonsson School of Engineering & Computer Science
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Educational History

- Ph.D., 12-30-2012, Virginia Tech, Blacksburg, VA, U.S., Computer Science
- M.S., 5-30-2012, Beihang University, Beijing, China, Computer Science
- B.S., 2-28-2001, Hunan University, Hunan, China, Computer Science

Professional Experience

- Assistant Professor, Department of Computer Science, University at Albany - SUNY, Albany, NY, 1-1-2014 to 7-31-2019
- Postdoctoral research Fellow, Event and Pattern Detection (EPD) Laboratory and the iLab, Carnegie Mellon University, Pittsburgh, PA, 1-1-2013 to 12-30-2013

Research Interests

My research is focused on novel statistical and computational methods for detection and forecasting of events and other relevant patterns (e.g., societal events, anomalous patterns, knowledge patterns) in complex and massive datasets, applied to problems ranging from medicine and public health, cybersecurity, urban computing, social science, to political science and law enforcement. Building on the statistical and computational methods for event and pattern detection, my main research interests also include the systems related to big data processing and mobile and stream computing, the privacy and security in data and information systems, and the paradigms to support big data and Internet-of-Things (IoT).

Areas:

- Spatio-Temporal Data Analysis
- Anomaly, Event, and Fraud Detection
- Social and Information Media & Network Analysis
- Statistical Data Analysis and Applied Machine Learning

Honor and other Recognitions

Awards and Fellowships

- CAREER Award, National Science Foundation, 2018
- Faculty Research Award, University at Albany, State University of New York, 2018
- Faculty Research Award, University at Albany, State University of New York, 2014
- ICDM Student Travel Grant Award, 2012
- Department Nominations for IBM Ph.D. Fellowship Awards, 2011, 2012
- KDD Student Travel Grant Award, 2011
- 2nd Place Poster Prize Award in Security Category, National Academy of Engineering Grand Challenges Summit Contest, Mar. 2-3, Durham, NC, 2009
- 2nd Place Research Poster Prize Award, Virginia Tech Northern Capital Region Graduate Research Symposium, Mar. 23-27, Falls Church, VA, 2009
- Service Excellence Award as Publication Chair, IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Nov. 13-15, Arlington, VA, 2006

Achievements in Original Achievement, Investigation, and Research

- Grants

- **Lead PI:** National Science Foundation (NSF) (**III Core:** Small Award# IIS-1815696)
A Novel Paradigm for Detecting Complex Anomalous Patterns in Multi-Modal, Heterogeneous, and High-Dimensional Multi-Source Data Sets. with Xiaohua Tony Hu (Drexel University).
\$499,718 (my share: \$249,989) (09/01/2018 – 08/30/2021)
- **PI:** National Science Foundation (NSF) (**CAREER Award**# IIS-1750911)
A Theoretical Framework for Discovering Complex Patterns in Big Attributed Networks.
\$537,044 (05/01/2018 – 04/30/2023)
- **Co-PI:** National Science Foundation (NSF) (DIP: Award# IIS-1441479)
Connecting Idea Threads across Communities for Sustained Knowledge Building. with Jianwei Zhang (PI, UAlbany), Mei-Hwa Chen (UAlbany), Marlene Scardamalia (Univ. of Toronto), Carolyn Rose (CMU).
\$1,342,537 (my share \$200,000) (09/01/2014 – 08/30/2019)
- **PI:** Army Research Office (ARO) (Award # W911NF1720129)
Uncertainty Management for Dynamic Decision Making.
\$330,000 (9/1/2017 – 12/30/2019)
- **PI:** Intelligence Advanced Research Projects Activity (IARPA) (Award # 432957-19191)
Early Model Based Event Recognition using Surrogates.
\$246,583 (04/01/2015 – 06/30/2016)
- **PI:** NIH Small Business Innovation Research (SBIR) Program
An Integrated, Open-source, Web Platform for Continuous Chronic Disease Surveillance on Social Media. with Ashish Chaudhary (Lead PI, Kitware) and Deepak Chittajallu (Kitware).
\$150,000 (my share \$50,000) (9/20/2017 – 3/20/2018)
- **PI:** SUNY Strategic Partnership for Industrial Resurgence (SPIR) Program
Data analytics on market insights from online news.
\$92,000 (5/1/2017 – 7/30/2018)
- **PI:** SUNY-A Faculty Research Award
A New Nonparametric and Deep Learning Framework for Anomalous Pattern Detection in Heterogeneous Multi-Source Data.
\$10,000 (01/01/2018-2/30/2021)
- **PI:** SUNY-B Faculty Research Award
Non-Parametric Graph Scan for Event Detection.
\$3,324 (06/01/2014 – 04/30/2015)
- **Co-PI:** SUNY Center-Scale Planning and Development Grant Program
A General, Intelligent, Bio-Inspired Computing Framework for Sensor Networks. with Tolga Soyata (PI), Ming-Ching Chang, Chinwe Ekenna, Yelin Kim, Jeong-Hyon Hwang.
\$25,000 (5/19/2018 – 12/31/2018)
- **Co-PI:** UAlbany University Presidential Innovation Fund for Research and Scholarship (PIFRS) program
A Systems-Oriented Framework for Mining Complex Subgraphs. with Jeong-Hyon Hwang (PI) and Petko B Bogdanov.
\$41,260 (02/01/2017 -7/30/2018)
- **Co-PI:** US Department of Transportation
Techniques for Efficient Detection of Rapid Weather Changes and Analysis of their Impacts on a Highway Network. with Catherine Lawson (PI).
\$71,684 (09/01/16 – 08/30/17)

- **Co-PI:** US Department of Transportation
Techniques for Information Extraction from Compressed GPS Traces. with Catherine Lawson (PI), Jeong-Hyon Hwang, and S. S. Ravi.
 \$100,000 (03/01/2014 – 02/30/2015)

- Journal Articles

1. Liang Zhao, Feng Chen, Yanfang Ye,
Efficient Learning with Exponentially-Many Conjunctive Precursors to Forecast Spatial Events
TKDE, 2019 (Impact Factor 3.438). (To Appear).
2. Jose Cadena, Feng Chen, Anil Vullikanti
Near-Optimal and Practical Algorithms for Graph Scan Statistics with Connectivity Constraints
ACM Transactions on Knowledge Discovery from Data (TKDD), 2019 (To Appear).
3. Nannan Wu, Feng Chen, Jianxin Li, Jinpeng Huai, Baojian Zhou, Bo Li, Naren Ramakrishnan
A Nonparametric Approach to Uncovering Connected Anomalies by Tree Shaped Priors
IEEE Transactions on Knowledge and Data Engineering (TKDE), 2018 (Impact Factor 3.438).
4. Yan Hu, Rui Wang, Feng Chen
Bi-Submodular Optimization (BSMO) for Detecting Drug-Drug Interactions (DDIs) from On-line Health Forum
Journal of Healthcare Informatics Research (JHIR), pp. 1–24, 2018.
5. Jose Cadena, Feng Chen, Anil Vullikanti
Graph Anomaly Detection Based on Steiner Connectivity and Density
Proceedings of the IEEE, vol. 106, no. 5, pp. 829–845, 2018 (Impact Factor 9.237).
6. Lu Lin, Jianxin Li, Feng Chen, Jieping Ye, Jinpeng Huai
Road Traffic Speed Prediction: A Probabilistic Model Fusing Multi-Source Data
IEEE Transactions on Knowledge and Data Engineering (TKDE), vol. 30, pp. 1310–1323, 2018 (Impact Factor 3.438).
7. Jieyu Zhao J, Jianxin Li, Baojian Zhou, Feng Chen, Tomchik Paul, Wuyang Lu
Parallel algorithms for anomalous subgraph detection
Concurrency and Computation: Practice and Experience, vol. 19, no. 3, 2017.
8. Yiming Guo, Zhen Sean Qian, Feng Chen
From Twitter to detector: Real-time traffic incident detection using social media data
Transportation Research Part C: Emerging Technologies, vol. 67, pp. 321–342, 2016 (Impact Factor 3.805).
9. Feng Chen and Daniel B. Neill
Human rights event detection from heterogeneous social media graphs
Big Data Journal, vol. 3, iss. 1, pp. 34–40, 2015.
10. Catherine L. Dumas, Daniel LaManna, Teresa M. Harrison, S. S. Ravi, Christopher Kotfila, Norman Gervais, Loni Hagen, and Feng Chen
Examining political mobilization of online communities through e-petitioning behavior in We the People
Journal of Big Data & Society, vol. 2, iss. 2, pp. 1–20, 2015.
11. Feng Chen and Daniel B. Neill
Non-Parametric Scan Statistics for Disease Outbreak Detection on Twitter
Online Journal of Public Health Informatics, vol. 6, iss. 1, 2014.
12. Liang Zhao, Junxiang Wang, Feng Chen, Chang-Tien Lu, Naren Ramakrishnan
Spatial Event Forecasting in Social Media with Geographically Hierarchical Regularization
Proceedings of the IEEE, vol. 105, no. 10, pp. 1953–1970, 2017 (Impact Factor 9.237).

13. Liang Zhao, Qian Sun, Jieping Ye, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
Feature Constrained Multi-Task Learning Models for Spatiotemporal Event Forecasting
IEEE Transactions on Knowledge and Data Engineering (TKDE), vol. 29, iss. 5, pp. 1059–1072, 2017 (Impact Factor 3.438).
14. Qifeng Lu, [Feng Chen](#), Kathleen Hancock
On Path Anomaly Detection in a Large Transportation Network
Journal of Computers, Environment and Urban Systems (JCEU), vol. 33, pp. 448–462, 2009.
15. Manu Shukla, Ray Dos Santos, [Feng Chen](#), Chang-Tien Lu
DISCRN: A Distributed Storytelling Framework for Intelligence Analysis
Big Data Journal, vol. 5, no. 3, pp. 225–245, 2017.
16. Xutong Liu, [Feng Chen](#), Kevin Y. Lu, Chang-Tien Lu
Spatial Prediction for Multivariate Non-Gaussian Data
ACM Transactions on Knowledge Discovery from Data (TKDD), vol. 11, iss. 3, 2017.
17. Liang Zhao, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
Online Spatial Event Forecasting in Microblogs
ACM Transactions on Spatial Algorithms and Systems (TSAS), vol. 2, iss. 4, 2016.
18. Kevin Y. Lu, [Feng Chen](#), Yating Wang, Chang-Tien Lu
Discovering Anomalies on Mixed-Type Data using a Generalized Student-t Based Approach
IEEE Transactions on Knowledge & Data Engineering (TKDE), vol. 28, iss. 10, pp. 2582–2595, 2016 (Impact Factor 3.438).
19. Ting Hua, [Feng Chen](#), Liang Zhao, Chang-Tien Lu, Naren Ramakrishnan
Automatic targeted-domain spatiotemporal event detection in twitter
Journal of GeoInformatica, vol. 20, iss. 4, pp. 765–795, 2016 (Impact Factor 2.091).
20. Dos Santos Jr R, Arnold Boedihardjo, Sumit Shah, [Feng Chen](#), Chang-Tien Lu
The big data of violent events: algorithms for association analysis using spatio-temporal storytelling
Journal of GeoInformatica, vol. 20, iss. 4, pp. 879–921, 2016 (Impact Factor 2.091).
21. Dos Santos Jr R, Sumit Shah, Arnold Boedihardjo, [Feng Chen](#), Chang-Tien Lu.
A framework for intelligence analysis using spatio-temporal storytelling
Journal of GeoInformatica, vol. 20, iss. 2, pp. 285–326, 2016 (Impact Factor 2.091).
22. Ting Hua, Liang Zhao, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
How events unfold: spatiotemporal mining in social media
SIGSPATIAL Special Newsletter, vol. 7, iss. 3, pp. 19–25, 2016.
23. Yao-Jan Wu, [Feng Chen](#), Chang-Tien Lu, Shu Yang
Traffic Flow Prediction for Urban Networks Using a Spatio-Temporal Random Effects Model
Journal of Intelligent Transportation Systems, vol. 20, iss. 3, pp. 282–293, 2016.
24. Arnold P. Boedihardjo, Chang-Tien Lu, [Feng Chen](#)
Fast Adaptive Kernel Density Estimators for Data Streams
Knowledge and Information Systems: An International Journal (KAIS), pp. 1–33, Springer, 2015 (Impact Factor 2.247).
25. Liang Zhao, [Feng Chen](#), Jing Dai, Ting Hua, Chang-Tien Lu, Naren Ramakrishnan
Unsupervised Spatial Event Detection in Targeted Domains with Applications to Civil Unrest Modeling
PLOS ONE, vol. 9, iss. 10, 2016 (Impact Factor 2.766).
26. Qiben Yan, Ming Li, [Feng Chen](#), Tingting Jiang, Weijing Lou, Y. T. Hou, Chang-Tien Lu
SpecMonitor: Towards Efficient Passive Traffic Monitoring for Cognitive Radio Networks
IEEE Transactions on Wireless Communication (TWC), vol. 13, iss. 10, pp. 5893–5905, 2014 (Impact Factor 4.91).

27. Ting Hua, Chang-Tien Lu, Naren Ramakrishnan, Feng Chen, Jaime Arredondo, David Mares, Kristen Summers
Analyzing Civil Unrest through Social Media
Computer Magazine, vol. 46, iss. 12, pp. 80–84, 2013 (Impact Factor 1.44).
28. Xutong Liu, Feng Chen, Chang-Tien Lu
On Detecting Spatial Categorical Outliers
Journal of Geoinformatica, vol. 18, iss. 3, pp. 501–536, 2013 (Impact Factor 2.091).
29. Dechang Chen, Chang-Tien Lu, Yufeng Kou, Feng Chen
On Detecting Spatial Outlier
Journal of Geoinformatica, vol. 12, no. 4, pp. 455–475, 2008 (Impact Factor 2.091).

- Conference Proceedings

1. Baojian Zhou, Feng Chen, Yiming Ying
Dual Averaging Method for Online Graph-structured Sparsity
KDD, 2019. (Oral Presentation; To Appear)
2. Baojian Zhou, Feng Chen, and Yiming Ying
Stochastic Iterative Hard Thresholding for Graph-structured Sparsity Optimization
ICML, 2019. (To Appear)
3. Nanan Wu, Wenjun Wang, Feng Chen, Jianxin Li, Bo Li, Jinpeng Huai
Uncovering Specific-Shape Graph Anomalies in Attributed Graphs
AAAI (16.2%), 2019 (To Appear).
4. Xujiang Zhao, Feng Chen, Jin-Hee Cho
Deep Learning for Predicting Dynamic Uncertain Opinions in Network Data
IEEE BIGDATA (short paper), pp. 1150–1155, 2018.
5. Xujiang Zhao, Feng Chen, Jin-Hee Cho
Deep Learning based Scalable Inference of Uncertain Opinions
IEEE ICDM (full paper, 8.86%), pp. 807–816, 2018.
6. Zhiqian Chen, Feng Chen, Rongjie Lai, Xuchao Zhang, Chang-Tien Lu
Rational Neural Networks for Approximating Graph Convolution Operator on Jump Discontinuities
IEEE ICDM (full paper, 8.86%), pp. 59–68, 2018.
7. Xujiang Zhao, Feng Chen, Jin-Hee Cho
Uncertainty-Based Opinion Inference on Network Data Using Graph Convolutional Neural Networks
IEEE MILCOM, pp. 731–736, 2018.
8. Boyang Hu, Baojian Zhou, Qiben Yan, Alim Adil, Feng Chen, Huacheng Zeng
PSCluster: Differentially Private Spatial Cluster Detection for Mobile Crowdsourcing Applications
IEEE CNS (28%), pp. 1–9, 2018.
9. Minglai Shao, Jianxin Li, Feng Chen, Xunxun Chen
An Efficient Framework for Detecting Evolving Anomalous Subgraphs in Dynamic Networks
IEEE INFOCOM (19.2%), 2018.
10. Feng Chen, Chunpai Wang, Jin-Hee Cho
Collective Subjective Logic: Scalable Uncertainty-based Opinion Inference
IEEE BigData (full paper, 18%), pages 7-16, 2017.
11. Feng Chen, Baojian Zhou, Adil Alim, Liang Zhao
A Generic Framework for Interesting Subspace Cluster Detection in Multi-attributed Networks
IEEE ICDM (full paper; 9.25%), pages 41-50, 2017.

12. Yan Hu, Rui Wang, Feng Chen
Drug-Drug Interactions (DDIs) Detection from On-Line Health Forums: Bi-Submodular Optimization (BSMO)
IEEE ICHI (full paper, 26.5%), pp. 163–170, 2017.
13. Yizhen Chen, Ming Ying, Daren Liu, Adil Alim, Feng Chen, Mei-Hwa Chen
Effective Online Software Anomaly Detection
ACM SIGSOFT ISSTA (26.3%), pp. 136–146, 2017.
14. Nannan Wu, Feng Chen, Jianxin Li, Jinpeng Huai, Bo Li
Query-Driven Discovery of Anomalous Subgraphs in Attributed Graphs
IJCAI (26%), pp. 3105–3111, 2017.
15. Jose Cadena, Feng Chen, Anil Vullikanti
Near Optimal and Practical Algorithms for Graph Scan Statistics
SIAM SDM (26%), pp. 624–632, 2017.
16. Fang Jin, Feng Chen, Rupinder Paul Khandpur, Chang-Tien Lu, Naren Ramakrishnan
Absenteeism Detection in Social Media
SIAM SDM (26%), pp. 606–614, 2017.
17. Fang Jin, Wei Wang, Prithwish Chakraborty, Nathan Self, Feng Chen, Naren Ramakrishnan
Tracking Multiple Social Media for Stock Market Event Prediction
ICDM (33%), pp. 16–30, 2017.
18. Minglai Shao, Jianxin Li, Feng Chen, Hongyi Huang, Shuai Zhang, Xunxun Chen
An Efficient Approach to Event Detection and Forecasting in Dynamic Multivariate Social Media Networks
WWW (17%), pp. 1631–1639, 2017.
19. Akanksha Atrey, Aatman Togadia, Feng Chen
Twitter Popularity Diffusion of Presidential Candidates Through Detection of Twitter Bots
IEEE URTC for Undergraduate Research Technology (poster), 2016.
20. Baojian Zhou and Feng Chen
Graph-Structured Sparse Optimization for Connected Subgraph Detection
IEEE ICDM (full paper, 8.4%), pp. 709–718, 2016.
21. Liang Zhao, Feng Chen, Chang-Tien Lu, Naren Ramakrishnan
Multi-resolution Spatial Event Forecasting in Social Media
IEEE ICDM (full paper, 8.4%), pp. 689–698, 2016.
22. Yu Liu, Baojian Zhou, Feng Chen, David W. Cheung
Graph Topic Scan Statistic for Spatial Event Detection
ACM CIKM (full paper, 17.6%), pp. 489–498, 2016.
23. Liang Zhao, Jieping Ye, Feng Chen, Chang-Tien Lu, Naren Ramakrishnan
Hierarchical Incomplete Multisource Feature Learning for Spatiotemporal Event Forecasting
ACM KDD (18.2%), pp. 2085–2094, 2016.
24. Feng Chen and Baojian Zhou
A Generalized Matching Pursuit Approach for Graph-Structured Sparsity
IJCAI, pp. 1389–1395, 2016.
25. Nannan Wu, Feng Chen, Jianxin Li, Baojian Zhou, Naren Ramakrishnan
Efficient Nonparametric Subgraph Detection using Tree Shaped Priors
AAAI (25.8%), pp. 1352–1358, 2016
26. Ting Hua, Yue Ning, Feng Chen, Chang-Tien Lu, Naren Ramakrishnan
Topical Analysis of Interactions between News and Social Media
AAAI (25.8%), pp. 2964–2971, 2016

27. Liang Zhao, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
Dynamic Theme Tracking in Twitter
IEEE BigData (16.8%), pp. 561–570, 2015
28. Liang Zhao, Jiangzhuo Chen, [Feng Chen](#), Wei Wang, Chang-Tien Lu, Naren Ramakrishnan
SimNest: Social Media Nested Epidemic Simulation via Online Semi-supervised Deep Learning
IEEE ICDM (full paper, 8.4%), pp. 639–648, 2015.
29. Liang Zhao, Qian Sun, Jieping Ye, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
Multi-task Learning for Spatio-Temporal Event Forecasting
ACM KDD (19.4%), pp. 1503–1512, 2015.
30. Liang Zhao, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
Spatiotemporal Event Forecasting in Social Media
SIAM SDM, pp. 963–971, 2015.
31. Po-Ta Chen, [Feng Chen](#), Zhen(Sean) Qian
Road Traffic Congestion Monitoring in Social Media with Hinge-Loss Markov Random Fields
IEEE ICDM (full paper 9.77%), pp. 80–89, 2014.
32. [Feng Chen](#) and Daniel B. Neill
Non-Parametric Scan Statistics for Event Detection and Forecasting in Heterogeneous Social Media Graphs
ACM KDD (15.8%), pp. 1166–1175, 2014.
33. Fang Jin, Rupinder Khandpur, Nathan Self, Edward Dougherty, [Feng Chen](#), B. Aditya Prakash, and Naren Ramakrishnan
Modeling Mass Protest Adoption in Social Network Communities using Geometric Brownian Motion
ACM KDD (15.8%), pp. 1660–1669, 2014.
34. Naren Ramakrishnan, . . . , [Feng Chen](#), and Others
Beating the news with EMBERS: Forecasting Civil Unrest using Open Source Indicators
ACM KDD (15.8%), pp. 1799–1808, 2014.
35. Ahmed Elbery, Mustafa EINainay, Chang-Tien Lu, [Feng Chen](#), Jeffrey Kendall
A Carpooling REcommendation System Based on Social Vanet and Geo-Social Data
ACM GIS (demo paper), 2013.
36. Ting Hua, [Feng Chen](#), Chang-Tien Lu, Naren Ramakrishnan
STED: Semi-Supervised Targeted Event Detection
ACM KDD (demo paper), 2013.
37. Yen-Cheng Lu, [Feng Chen](#), Yang Chen, Chang-Tien Lu
A Generalized Student-t Based Approach to Mixed-Type Anomaly Detection
AAAI (29%), 2013.
38. Qiben Yan, Ming Li, [Feng Chen](#), Tingting Jiang, Wenjing Lou, Chang-Tien Lu
Optimal Network Traffic Surveillance in Cognitive Radio Networks
IEEE INFORCOM (17%), pp. 1240–1248, 2013.
39. Yang Chen, [Feng Chen](#), Jing Dai, T. Charles Clancy
Student-t Based Robust Spatio-Temporal Prediction
IEEE ICDM (full paper, 10.71%), pp. 151–160, 2012.
40. Ahmed Elbery, Mustafa EINainay, Chang-Tien Lu, [Feng Chen](#), Jeffrey Kendall
A Carpooling REcommendation System Based on Social Vanet and Geo-Social Data
ACM GIS, pp. 556–559, 2013.
41. Xutong Liu, [Feng Chen](#), Chang-Tien Lu
Robust Inference and Outlier Detrection for Large Spatial Data Sets
IEEE ICDM (full paper, 10.71%), pp. 469–478, 2012.

42. Bingsheng Wang, [Feng Chen](#), Haili Dong, Arnold Boedihardjo, Chang-Tien Lu
Signal Disaggregation via Sparse Coding with Featured Discriminative Dictionary
IEEE ICDM (short paper, 19.97%), pp. 1134–1139, 2012.
43. Yao-Jan Wu, [Feng Chen](#), Chang-Tien Lu, Brian Smith, Yang Chen
Traffic Flow Prediction for Urban Network using Spatial Temporal Random Effects Model
TRB, 2012.
44. Xutong Liu, [Feng Chen](#), Chang-Tien Lu
Spatial Categorical Outlier Detection: Pair Correlation Function Based Approach
ACM GIS (21%), pp. 465–468, 2011.
45. Jing Dai, Ming Li, Sambit Sahu, Milind Naphade, [Feng Chen](#)
Multi-granular Demand Forecasting in Smarter Water
UbiComp, pp. 595–596, 2011.
46. [Feng Chen](#), Jing Dai, Bingsheng Wang, Sambit Sahu, Milind Naphade, Chang-Tien Lu
Activity Analysis Based on Low Sample Rate Smart Meters
ACM KDD (16%), pp. 240–248, 2011.
47. [Feng Chen](#), Chang-Tien Lu, Arnold P. Boedihardjo
GLS-SOD: A Generalized Local Statistical Approach for Spatial Outlier Detection
ACM KDD (long presentation, 13.3%), pp. 1069–1078, 2010.
48. Jing Dai, [Feng Chen](#), Sambit Sahu, Milind Naphade,
Regional Behavior Change Detection via Local Spatial Scan
ACM GIS (21%), 2010.
49. Xutong Liu, Chang-Tien Lu, [Feng Chen](#)
Spatial Outlier Detection: Random Walk Based Approaches
ACM GIS (21%), 2010.
50. [Feng Chen](#), Chang-Tien Lu, Arnold P. Boedihardjo
On Locally Linear Classification by Pair-wise Coupling
IEEE ICDM (short paper, 19.9%), pp. 749–754, 2008
51. Arnold P. Boedihardjo, Chang-Tien Lu, [Feng Chen](#)
A Framework for Estimating Complex Probability Density Structures in Data Streams
ACM CIKM (full paper, 17%), pp. 619–628, 2008.
52. Chang-Tien Lu, Arnold P. Boedihardjo, David Dai, [Feng Chen](#)
HOMES: Highway Operations and Monitoring and Evaluation System
ACM GIS (demo paper), pp. 529–530, 2008.
53. Xutong Liu, Chang-Tien Lu, [Feng Chen](#)
An Entropy-Based Method for Assessing the Number of Spatial Outliers
IEEE IRI, pp. 244–249, 2008.
54. Chang-Tien Lu, Arnold P. Boedihardjo, David Dai, [Feng Chen](#)
HOMES: Highway Operations and Monitoring and Evaluation System
ACM GIS (demo paper), pages 529–530, 2008

- Invited talks/presentations

1. CAREER Proposal Writing Workshop, UAlbany, Albany, NY, May 21, 2018
My Experience of Writing CAREER Proposals
2. University at Albany, School of Education Day, Albany, NY, Sep. 11, 2017
Idea Thread Mapper (ITM): Connecting Idea Threads Across Communities for Sustained Knowledge Building
3. University at Albany, School of Education Day, Albany, NY, Aug. 1, 2017
Idea Thread Mapper: Technology and Educational Innovations for Sustaining Collaborative Inquiry across Classrooms

4. Rensselaer Polytechnic Institute, Mathematical Sciences Department Colloquium Talk, Troy, NY, Sep. 22, 2017
Graph-structured sparse optimization for anomalous pattern detection in attributed networks
5. The 2nd International Workshop on the Social Web for Environmental and Ecological Monitoring (SWEEM 2017), Troy, NY, Jun. 25, 2017.
Graph-Structured Sparse Optimization for Connected Subgraph Detection
6. IQVIA, formerly Quintiles IMS Holdings, Inc., Advanced Data Analytics team, Plymouth Meeting, PA, Oct. 2016.
A Generic and Theoretical Framework for Subnetwork Discovery in Large and Attributed Networks
7. Introduction to Data Analysis Class, UAlbany, Albany, NY, Dec. 08, 2016.
Anomalous and Significant Subgraph Detection in Attributed Networks
8. Informatics Department, UAlbany, Albany, NY, Mar. 30th, 2015
Non-Parametric Scan Statistics for Event Detection and Forecasting in Heterogeneous Social Media Graphs
9. NSF Workshop on Knowledge Discovery in Cyberspace and Big Data, Aug. 11, San Diego, CA, 2015
A User Friendly Framework for Anomalous Pattern Detection
10. The Institute of Advanced Computing Technology, Beihang University, Beijing, China, Jul. 16, 2014
Probabilistic Soft Logic with Applications to Event Detection
11. NSF Workshop on Knowledge Discovery in Cyberspace and Big Data, Aug. 11, San Diego, CA, 2014
12. International Workshop on Applied Probability, Antalya, Turkey, Jun. 2014
Non-Parametric Scan Statistics for Event Detection and Forecasting in Heterogeneous Social Media Graphs
13. University at Albany Job Talk, Department of Computer Science, Mar., 2014
Automatic Detection of Significant Societal Events in Social Media
APDL: A Probabilistic Modeling Language for Anomalous Pattern Detection on Large Graphs
14. NSF Workshop on Knowledge Discovery in Cyberspace and Big Data, San Diego, CA, 2013
Automatic Event Detection and Storytelling in Social Media
15. The Institute of Advanced Computing Technology, Beihang University, Beijing, China, Sep. 15, 2013
Recent Advances on Spatial Event Detection
16. INFORMS Annual Meeting, Minneapolis, MN, October 2013.
Non-Parametric Scan Statistics for Event Detection and Forecasting in Heterogeneous Social Media Graphs
17. Washington State University Job Talk, Department of Computer Science, May, 2012
Activity Analysis Based on Low Sample Rate Smart Meters
18. Business Intelligence and Data Mining Class, Carnegie Mellon University's Heinz College, Pittsburgh, PA, Nov. 11, 2011
Crowdsourcing for Transportation Safety Enhancement using Twitter Data

- Patents

1. **Behavior Change Detection**

Inventors: Jing Dai, Feng Chen, Sambit Sahu, Milind Naphade. IBM T. J. Watson Research, filed Nov. 2011, approved: US9171339B2.

2. **Utility Consumption Disaggregation Through Human Activity Association**

Inventors: Jing Dai, Feng Chen, Sambit Sahu, Milind Naphade. IBM T. J. Watson Research, filed Aug. 2012, approved: US9256908B2.

Professional and University Citizenship

- Program Committees
 - **Student Travel Award Chair** (2018) IEEE International Conference on Big Data (BigData)
 - **Tutorials Co-Chair** (2017) IEEE International Conference on Big Data (BigData)
 - **Co-Chair** (2018) IEEE International Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD)
 - **Session Chair** (2017) SIAM International Conference on Data Mining (SDM)
 - **Session Chair** (2015) IEEE International Conference on Data Mining (ICDM)
 - **Publication Chair** (2006) IEEE International Conference on Tools with Artificial Intelligence (ICTAI)
 - **Member** (2016, 2017, 2018) ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)
 - **Member** (2015, 2017, 2018) IEEE International Conference on Data Mining (ICDM)
 - **Member** (2015, 2016) SIAM International Conference on Data Mining (SDM)
 - **Member** (2013, 2018) International Joint Conferences on Artificial Intelligence (IJCAI)
 - **Member** (2017, 2018) AAAI Conference on Artificial Intelligence (AAAI)
 - **Member** (2014, 2015, 2016) UAI Bayesian Applications Workshop (BIBW)
 - **Member** (2014) IEEE International Workshop on Trust, Security and Privacy for Big Data (TrustData)
 - **Member** (2015) Mobile Sensing, Mining and Visualization for Human Behavior Inference Workshop (MSMV-MBI)
 - **Member** (2015) Digital Forensics Experiments and Results (DiFER)
 - **Member** (2015) International Workshop on Big Data in Computational Epidemiology (BDCE)
 - **Member** (2015) ACM International Workshop on Data Mining for Brain Science (BrainKDD)
 - **Member** (2018) ACM SIGSPATIAL Workshop on Analytics for Local Events and News (LENS)
- Workshop Organizer
 - 2nd IEEE International Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD), collocated with IEEE BigData 2018. with Yiming Ying (UAlbany), Jianwu Wang (UMBC), Zhiyuan Chen (UMBC)
- Tutorials
 - (IEEE BigData 2016) Anomalous and Significant Subgraph Detection in Attributed Networks Feng Chen, Petko Bogdanov (UAlbany), Daniel B. Neill (CMU), Ambug K. Singh (UCSB). (2 hours)
 - (IEEE BigData 2018) Big Data Analytics for Societal Event Forecasting Liang Zhao (GMU) and Feng Chen. (2 hours)
- Editors
 - Guest Editor: A special issue of Geoinformatica on geo-social media analytics.
- Reviewer
 - NSF III CISE/SCH Review Panelist, July 2018
 - NSF III CISE/III Review Panelist, Mar 2017
 - NSF III CISE/III Review Panelist, Mar 2016
 - NSF Electronic Proposal Review, Dec 2017
 - NSF Electronic Proposal Review, July 2015
 - IEEE Transactions on Knowledge and Data Engineering (TKDE)

- ACM Transactions on Knowledge Discovery from Data (TKDD)
- IEEE Transaction on Big Data (TBD)
- Transactions on Intelligent Systems and Technology (TIST)
- IEEE/ACM Transactions on Networking (TNET)
- Knowledge and Information Systems (KAIS)
- Transactions on Services Computing (TSC)
- Journal of Geoinformatica
- Journal of Meteorological Research (JMR)
- International Journal of Data Science and Analytics (JDSA)
- Proceedings of IEEE
- Information Sciences
- Computer Magazine
- PLOS ONE
- KDD, ICDM, SDM, AAI, IJCAI, CIKM
- University Service
 - Committee Member, CS Evergreen Search Committee. (Oct. 2015 – Apr. 2016)
 - Committee Member, Curriculum and Honors (C&H) committee. (Sep. 2015 – Jul. 2016)
 - Committee Member, College of Engineering and Applied Sciences (CEAS) TA Guidelines. (Mar. 2017 - Jun. 2017)
 - Committee Member, Committee on Academic Standing. (Aug. 2016 – Aug. 2017)
 - Committee Member, Advisory Committee on Research Space. (Feb. 2016 – Present)