

Feng Chen

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Current Position

Postdoctoral Research Fellow. Carnegie Mellon University. Jan-2013 to Present

Research Interests

Large-Scale Spatio-Temporal Analysis, Social Media Mining, Energy Efficiency Mining for Sustainability, Text Mining, Statistical Machine Learning

Representative Publications

1. *STED: Semi-Supervised Targeted Event Detection*
Ting Hua, **Feng Chen**, Liang Zhao, Chang-Tien Lu, Naren Ramakrishnan.
The Proceedings of the 19th ACM SIGKDD Conference on Knowledge Discovery and Data Mining – Demo Track, 2013, to appear
2. *A Generalized Student-t Based Approach to Mixed-Type Anomaly Detection* [[pdf](#)]
Yen-Cheng Lu, **Feng Chen**, Yang Chen, Chang-Tien Lu
The AAAI Conference on Artificial Intelligence (**AAAI**), 2013, to appear
3. A Hierarchical Probabilistic Model for Low-Sample-Rate Home-Use Energy Disaggregation [[pdf](#)]
Bingsheng Wang, Haili Dong, Arnold P. Boedihardjo, **Feng Chen**, Chang-Tien Lu
The SIAM International Conference on Data Mining (**SDM**), 2013, to appear
4. *Student-t Based Robust Spatio-Temporal Prediction* [[pdf](#)]
Yang Chen, **Feng Chen**, Chang-Tien Lu
Proceedings of the IEEE International Conference on Data Mining (**IEEE ICDM**), pages 151-160, 2013 (Full paper, Acceptance rate 10.7%)
5. *Robust Inference and Outlier Detection for Large Spatial Data Sets* [[pdf](#)]
Xutong Liu, **Feng Chen**, Chang-Tien Lu
Proceedings of the IEEE International Conference on Data Mining (**IEEE ICDM**), pages 469-478, 2013 (Full paper, Acceptance rate 10.7%)
6. *Low-sample-rate Water Consumption Disaggregation via Sparse Coding with Extended Discriminative Dictionary* [[pdf](#)]
Bingsheng Wang, **Feng Chen**, Haili Dong, Arnold Boedihardjo, and Chang-Tien Lu
Proceedings of the IEEE International Conference on Data Mining (**IEEE ICDM**), pages 1134-1139, 2013 (Short paper, Acceptance rate 20%)
7. Spatial Surrogates to Forecast Social Mobilization and Civil Unrests [[pdf](#)]
Feng Chen, Jaime Arredondo, Rupinder Paul Khandpur, Chang-Tien Lu, David Mares, Dipak Gupta, and Naren Ramakrishnan
From GPS and Virtual Globes to Spatial Computing, CCC Geospatial Computing Workshop, 2013

8. *Traffic Flow Prediction for Urban Network using Spatial Temporal Random Effects Model* [[pdf](#)]
Yao-Jan Wu, **Feng Chen**, Chang-Tien Lu, Brian Smith, Yang Chen
The 91st Annual Meeting of the Transportation Research Board (**TRB**), 2012
9. *Spatial Categorical Outlier Detection: Pair Correlation Function Based Approach* [[pdf](#)]
Xutong Liu, **Feng Chen**, Chang-Tien Lu
Proceedings of the 19th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (**ACM SIGSPATIAL GIS**), pages 465-468, 2012
10. *Multi-granular Demand Forecasting in Smarter Water* [[pdf](#)]
Jing Dai, Ming Li, Sambit Sahu, Milind Naphade, **Feng Chen**
Proceedings of the 13th International Conference on Ubiquitous Computing (**Ubicomp**), Poster Paper, 2011
11. *Activity Analysis Based on Low Sample Rate Smart Meters* [[pdf](#)]
Feng Chen, Jing Dai, Bingsheng Wang, Sambit Sahu, Milind Naphade, Chang-Tien Lu, Proceedings of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**ACM KDD**), pages 240-248, 2011 (Acceptance rate: 17.5%)
12. *GLS-SOD: A Generalized Local Statistical Approach for Spatial Outlier Detection* [[pdf](#)]
Feng Chen, Chang-Tien Lu, Arnold P. Boedihardjo
Proceedings of the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**ACM KDD**), pages 1069-1078, 2010 (Acceptance rate: 13%)

Professional Services

Program Committee:

1. PC Member: International Joint Conferences on Artificial Intelligence, 2013
2. Publication Chair, IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Nov. 13-15, Arlington, VA, 2006

Journal Reviewer:

Journal of Information Science, IEEE Transactions on Knowledge and Data Engineering (TKDE)

Journal/Conference External Reviewer:

IEEE Transactions on Knowledge and Data Engineering (TKDE), Information Science Journal, ACM Conference on Information and Knowledge Management (CIKM), IEEE International Conference on Data Mining (ICDM), ACM International Conference on Knowledge Discovery and Data Mining Conference (KDD), ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS)

Volunteer: ACM International Conference on Information and Knowledge Management (CIKM), 2006