Lijun Zhang

Contact Information

Nanjing University, Xianlin Campus Mailbox 603
163 Xianlin Avenue, Qixia District
Nanjing 210023, China

Phone: +86-25-89680949
E-mail: zlj@nju.edu.cn
WWW: http://cs.nju.edu.cn/zlj

Research Interests

Machine Learning, Optimization, Information Retrieval, Data Mining

Academic Appointments

Associate Professor Apr., 2014 – present

Department of Computer Science and Technology, Nanjing University

Postdoctoral Researcher Aug., 2012 – Apr., 2014

Department of Computer Science and Engineering, Michigan State University

- Advisor: Prof. Rong Jin

Education

Zhejiang University, Hangzhou, China

Ph.D., Computer Science and Technology, Sep., 2007 – Jun., 2012

- Advisor: Prof. Chun Chen

B.E., Software Engineering, Sep., 2003 – Jun., 2007

Michigan State University, East Lansing, USA

Visiting Student, Department of Computer Science and Engineering, Jun., 2011 – Dec., 2011

- Advisor: Prof. Rong Jin

Honors and Awards

- 2012, AAAI-12 Outstanding Paper Awards
- 2010, Scholarship Award for Excellent Doctoral Student Granted by Ministry of Education
- 2010–2011, Chu Kochen Award (Highest Honour of Zhejiang University)
- 2007, 2012, Excellent Graduate of Zhejiang Province
- 2007, 2012, Excellent Graduate of Zhejiang University

Professional Service

Program Committee Member

- The 33rd International Conference on Machine Learning (ICML 2016)
- The 22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2016)
- The 25th International Joint Conference on Artificial Intelligence (IJCAI 2016)
- The 21st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2015)
- The 24th International Joint Conference on Artificial Intelligence (IJCAI 2015)
- The 29th Conference on Artificial Intelligence (AAAI 2015)
- The 2nd International Conference on Big Data and Smart Computing (BigComp 2015)
- The 23rd ACM International Conference on Multimedia (MM 2015)
- The 22nd ACM International Conference on Multimedia (MM 2014)
- The 23rd International Conference on Artificial Intelligence (IJCAI 2013)
- The 26th Conference on Artificial Intelligence (AAAI 2012)

Reviewer

- The 19th International Conference on Artificial Intelligence and Statistics (AISTATS 2016)
- The 29th Annual Conference on Neural Information Processing Systems (NIPS 2015)
- The 28th Annual Conference on Neural Information Processing Systems (NIPS 2014)
- The 27th Annual Conference on Neural Information Processing Systems (NIPS 2013)
- The 2011 International Joint Conference on Neural Networks (IJCNN 2011)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics (TSMCB)
- IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews (TSMCC)
- IEEE Transactions on Cybernetics
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- ACM Transactions on Knowledge Discovery from Data (TKDD)
- Pattern Recognition, Information Sciences, Neural Networks
- Neurocomputing, Signal Processing, Knowledge-Based Systems
- SCIENCE CHINA Information Sciences
- Journal of Computer Science and Technology

Conference Publications

1. **Lijun Zhang**, Tianbao Yang, Rong Jin, Yichi Xiao, and Zhi-Hua Zhou. Online Stochastic Linear Optimization under One-bit Feedback. In *Proceedings of the 33rd International Conference on Machine Learning* (**ICML**), to appear, 2016.

2. Tianbao Yang, **Lijun Zhang**, Rong Jin, and Jinfeng Yi. Tracking Slowly Moving Clairvoyant: Optimal Dynamic Regret of Online Learning with True and Noisy Gradient. In *Proceedings of the 33rd International Conference on Machine Learning* (**ICML**), to appear, 2016.

3. **Lijun Zhang**, Tianbao Yang, Jinfeng Yi, Rong Jin, and Zhi-Hua Zhou. Stochastic Optimization for Kernel PCA. In *Proceedings of the 30th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 2316–2322, 2016.

4. Weizhong Zhang, **Lijun Zhang**, Rong Jin, Deng Cai, and Xiaofei He. Accelerated Sparse Linear Regression via Random Projection. In *Proceedings of the 30th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 2337–2343, 2016.

5. Zhe Li, Tianbao Yang, **Lijun Zhang**, and Rong Jin. Fast and Accurate Refined Nyström Based Kernel SVM. In *Proceedings of the 30th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 1830–1836, 2016.

6. Jinfeng Yi, **Lijun Zhang**, Tianbao Yang, Wei Liu, and Jun Wang. An Efficient Semi-Supervised Clustering Algorithm with Sequential Constraints. In *Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (**KDD**), pp. 1405–1414, 2015.

7. Mehrdad Mahdavi, **Lijun Zhang**, and Rong Jin. Lower and Upper Bounds on the Generalization of Stochastic Exponentially Concave Optimization. In *Proceedings of the 28th Conference on Learning Theory* (**COLT**), 2015.

8. Tianbao Yang, **Lijun Zhang**, Rong Jin, and Shenghuo Zhu. An Explicit Sampling Dependent Spectral Error Bound for Column Subset Selection. In *Proceedings of the 32nd International Conference on Machine Learning* (**ICML**), 2015.

9. Tianbao Yang, **Lijun Zhang**, Rong Jin, and Shenghuo Zhu. Theory of Dual-Sparse Regularized Randomized Reduction. In *Proceedings of the 32nd International Conference on Machine Learning* (**ICML**), 2015.

10. **Lijun Zhang**, Tianbao Yang, Rong Jin, and Zhi-Hua Zhou. A Simple Homotopy Algorithm for Compressive Sensing. In *Proceedings of the 18th International Conference on Artificial Intelligence and Statistics* (**AISTATS**), pp. 1125–1133, 2015.

11. **Lijun Zhang**, Tianbao Yang, Rong Jin, and Zhi-Hua Zhou. Online Bandit Learning for a Special Class of Non-convex Losses. In *Proceedings of the 29th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 3158–3164, 2015.

12. **Lijun Zhang**, Jinfeng Yi, and Rong Jin. Efficient Algorithms for Robust One-bit Compressive Sensing. In *Proceedings of the 31st International Conference on Machine Learning* (**ICML**), pp. 820–828, 2014.

13. Jinfeng Yi, **Lijun Zhang**, Jun Wang, Rong Jin, and Anil K. Jain. A Single-Pass Algorithm for Efficiently Recovering Sparse Cluster Centers of High-dimensional Data. In *Proceedings of the 31st International Conference on Machine Learning* (**ICML**), pp. 658–666, 2014.

14. Weizhong Zhang, **Lijun Zhang**, Yao Hu, Rong Jin, Deng Cai, and Xiaofei He. Sparse Learning for Stochastic Composite Optimization. In *Proceedings of the 28th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 893–899, 2014.

15. **Lijun Zhang**, Mehrdad Mahdavi, and Rong Jin. Linear Convergence With Condition Number Independent Access of Full Gradients. In *Advances in Neural Information Processing Systems 26* (**NIPS**), pp. 980–988, 2013.

16. Mehrdad Mahdavi, **Lijun Zhang**, and Rong Jin. Mixed Optimization for Smooth Functions. In *Advances in Neural Information Processing Systems 26* (**NIPS**), pp. 674–682, 2013.

17. **Lijun Zhang**, Mehrdad Mahdavi, Rong Jin, Tianbao Yang, and Shenghuo Zhu. Recovering the Optimal Solution by Dual Random Projection. In *Proceedings of the 26th Annual Conference on Learning Theory* (**COLT**), pp. 135–157, 2013.

18. **Lijun Zhang**, Jinfeng Yi, Rong Jin, Ming Lin, and Xiaofei He. Online Kernel Learning with a Near Optimal Sparsity Bound. In *Proceedings of the 30th International Conference on Machine Learning* (**ICML**), pp. 621–629, 2013.

19. **Lijun Zhang**, Tianbao Yang, Rong Jin, and Xiaofei He. $O(\log T)$ Projections for Stochastic Optimization of Smooth and Strongly Convex Functions. In *Proceedings of the 30th International Conference on Machine Learning* (**ICML**), pp. 1121–1129, 2013.

20. Jinfeng Yi, **Lijun Zhang**, Rong Jin, Qi Qian, and Anil K. Jain. Semi-Supervised Clustering by Input Pattern Assisted Pairwise Similarity Matrix Completion. In *Proceedings of the 30th International Conference on Machine Learning* (**ICML**), pp. 1400–1408, 2013.

21. Tianbao Yang, Mehrdad Mahdavi, Rong Jin, **Lijun Zhang**, and Yang Zhou. Multiple Kernel Learning from Noisy Labels by Stochastic Programming . In *Proceedings of the 29th International Conference on Machine Learning* (**ICML**), pp. 233–240, 2012.

22. **Lijun Zhang**, Rong Jin, Chun Chen, Jiajun Bu, and Xiaofei He. Efficient Online Learning for Large-Scale Sparse Kernel Logistic Regression. In *Proceedings of the 26th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 1219–1225, 2012.

23. Zhanying He, Chun Chen, Jiajun Bu, Can Wang, **Lijun Zhang**, Deng Cai, and Xiaofei He. Document Summarization Based on Data Reconstruction. In *Proceedings of the 26th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 620–626, 2012. (Outstanding Paper Award)

24. **Lijun Zhang**, Chun Chen, Jiajun Bu, Zhengguang Chen, Shulong Tan, and Xiaofei He. Discriminative Codeword Selection for Image Representation. In *Proceedings of the 18th ACM International Conference on Multimedia* (**ACM Multimedia**), pp. 173–182, 2010.

25. Jiajun Bu, Shulong Tan, Chun Chen, Can Wang, Hao Wu, **Lijun Zhang**, and Xiaofei He. Music Recommendation by Unified Hypergraph: Combining Social Media Information and Music Content. In *Proceedings of the 18th ACM International Conference on Multimedia* (**ACM Multimedia**), pp. 391–400, 2010.

26. Chun Chen, Zhengguang Chen, Jiajun Bu, Can Wang, **Lijun Zhang**, and Cheng Zhang. G-Optimal Design with Laplacian Regularization. In *Proceedings of the 24th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 413–418, 2010.

27. Hao Wu, Jiajun Bu, Chun Chen, Can Wang, Guang Qiu, **Lijun Zhang**, and Jianfeng Shen. Modeling Dynamic Multi-Topic Discussions in Online Forums. In *Proceedings of the 24th AAAI Conference on Artificial Intelligence* (**AAAI**), pp. 1455–1460, 2010.

28. **Lijun Zhang**, Chun Chen, Wei Chen, Jiajun Bu, Deng Cai, and Xiaofei He. Convex Experimental Design Using Manifold Structure for Image Retrieval. In *Proceedings of the 17th ACM International Conference on Multimedia* (**ACM Multimedia**), pp. 45–53, 2009.

Journal Publications

1. Xiaofei He, Chiyuan Zhang, **Lijun Zhang**, and Xuelong Li. A-Optimal Projection for Image Representation. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**), 38(5): 1009–1015, 2016.

2. Zhou Zhao, Xiaofei He, Deng Cai, **Lijun Zhang**, Wilfred Ng, and Yueting Zhuang. Graph Regularized Feature Selection with Data Reconstruction. *IEEE Transactions on Knowledge and Data Engineering* (**TKDE**), 28(3): 689–700, 2016.

3. Ming Lin, **Lijun Zhang**, Rong Jin, Shifeng Weng, and Changshui Zhang. Online Kernel Learning with Nearly Constant Support Vectors. *Neurocomputing*, 179: 26–36, 2016.

4. Ziyu Guan, **Lijun Zhang**, Jinye Peng, and Jianping Fan. Multi-View Concept Learning for Data Representation. *IEEE Transactions on Knowledge and Data Engineering*, (**TKDE**), 27(11): 3016–3028, 2015.

5. Zhou Zhao, **Lijun Zhang**, Xiaofei He, and Wilfred Ng. Expert Finding for Question Answering via Graph Regularized Matrix Completion. *IEEE Transactions on Knowledge and Data Engineering* (**TKDE**), 27(4): 993–1004, 2015.

6. Qi Qian, Rong Jin, Jinfeng Yi, **Lijun Zhang**, and Shenghuo Zhu. Efficient Distance Metric Learning by Adaptive Sampling and Mini-Batch Stochastic Gradient Descent (SGD). *Machine Learning*, 99(3): 353–372, 2015.

7. Ping Li, Jiajun Bu, **Lijun Zhang**, and Chun Chen. Graph-Based Local Concept Coordinate Factorization. *Knowledge and Information Systems* (**TKDE**), 43(1): 103–126, 2015.

8. Zhanying He, Chun Chen, Jiajun Bu, Can Wang, **Lijun Zhang**, Deng Cai, and Xiaofei He. Unsupervised Document Summarization from Data Reconstruction Perspective. *Neurocomputing*, 157: 356–366, 2015.

9. **Lijun Zhang**, Mehrdad Mahdavi, Rong Jin, Tianbao Yang, and Shenghuo Zhu. Random Projections for Classification: A Recovery Approach. *IEEE Transactions on Information Theory* (**TIT**), 60(11): 7300–7316, 2014.

10. **Lijun Zhang**. Locally Regressive Projections. *International Journal of Software and Informatics* (**IJSI**), 7(3): 435–451, 2013.

11. **Lijun Zhang**, Chun Chen, Jiajun Bu, Zhengguang Chen, Deng Cai, and Jiawei Han. Locally Discriminative Coclustering. *IEEE Transactions on Knowledge and Data Engineering* (**TKDE**), 24(6): 1025–1035, 2012.

12. **Lijun Zhang**, Chun Chen, Jiajun Bu, and Xiaofei He. A Unified Feature and Instance Selection Framework Using Optimum Experimental Design. *IEEE Transactions on Image Processing* (**TIP**), 21(5): 2379–2388, 2012.

13. Hao Wu, Jiajun Bu, Chun Chen, Jianke Zhu, **Lijun Zhang**, Haifeng Liu, Can Wang, and Deng Cai. Locally Discriminative Topic Modeling. *Pattern Recognition*, 45(1): 617–625, 2012.

14. **Lijun Zhang**, Chun Chen, Jiajun Bu, Deng Cai, Xiaofei He, and Thomas S. Huang. Active Learning Based on Locally Linear Reconstruction. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**), 33(10): 2026–2038, 2011.

15. Miao Zheng, Jiajun Bu, Chun Chen, Can Wang, **Lijun Zhang**, Guang Qiu, and Deng Cai. Graph Regularized Sparse Coding for Image Representation. *IEEE Transactions on Image Processing* (**TIP**), 20(5): 1327–1336. 2011.

16. **Lijun Zhang**, Zhengguang Chen, Miao Zheng, and Xiaofei He. Robust Non-negative Matrix Factorization. *Frontiers of Electrical and Electronic Engineering in China*, 6: 192-200, 2011.

17. Chun Chen, **Lijun Zhang**, Jiajun Bu, Can Wang, and Wei Chen. Constrained Laplacian Eigenmap for Dimensionality Reduction. *Neurocomputing*, 73(4-6): 951–958, 2010.