

Yang Lu (Jason)



PERSONAL INFORMATION

Birth Date: 25 Apr 1990

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EDUCATIONAL BACKGROUND

- Sep 2014~Aug 2019: Hong Kong Baptist University, PhD in computer science (GPA: 4.0/4.0). Supervisor: Prof. Yiu-ming Cheung (IEEE Fellow).
- Aug 2012~June 2014: University of Macau, Master of Science in software engineering (GPA: 3.57/4.0, rank top 5% in major). Supervisor: Prof. Yuan Yan Tang (IEEE Fellow)
- Sep 2008~May 2012: University of Macau, Bachelor of Science in software engineering (GPA: 3.55/4.0, rank top 5% in major).
- Sep 2005~June 2008: Fuzhou No. 8 Middle School, Fujian.

WORKING EXPERIENCE

- Oct 2019~present: Assistant professor, Department of Computer Science, School of Informatics, Xiamen University
- May 2018~Apr 2019: Research intern, Department of financial data application, Tencent.
- Sep 2014~June 2017: Teaching assistant, Hong Kong Baptist University.
- Sep 2012~June 2014: Teaching assistant, University of Macau.
- June 2012~Aug 2012: Research intern, Intelligent Information Processing Laboratory, Tsinghua University.

PUBLICATIONS

Journal Publications

- Bayes Imbalance Impact Index: A Measure of Class Imbalanced Dataset for Classification Problem
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), under review.
- Adaptive Chunk-based Dynamic Weighted Majority for Imbalanced Data Streams with Concept Drift
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), under review.

- Self-Adaptive Multi-Prototype-based Competitive Learning Approach: A k-means-type Algorithm for Imbalanced Data Clustering
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
IEEE Transactions on Cybernetics (TCYB), DOI:10.1109/TCYB.2019.2916196.
- k-Times Markov Sampling for SVMC
Bin Zou, Chen Xu, Yang Lu, Yuan Yan Tang, Jie Xu, Xinge You
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), vol. 29, no. 4, pp. 1328-1341, 2018.
- Hyperspectral Image Classification Based on Three-Dimensional Scattering Wavelet Transform
Yuan Yan Tang, Yang Lu, Haoliang Yuan
IEEE Transactions on Geoscience and Remote Sensing (TGRS), vol. 53, no. 5, pp. 2467-2480, 2015.
(Supervisor is the first author)
- A Fractal Dimension and Wavelet Transform Based Method for Protein Sequence Similarity Analysis
Lina Yang, Yuan Yan Tang, Yang Lu and Huiwu Luo
IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB), vol. 12, no. 2, pp. 348-369, 2015.
- The Generalization Ability of SVM Classification Based on Markov Sampling
Jie Xu, Yuan Yan Tang, Bin Zou, Zong Ben Xu, Luo Qing Li, Yang Lu, Baochang Zhang
IEEE Transactions on Cybernetics (TCYB), vol. 45, no. 6, pp. 1169-1179, 2015.
- Generalization Performance of Gaussian Kernels SVMC Based on Markov Sampling
Jie Xu, Yuan Yan Tang, Bin Zou, Zong Ben Xu, Luo Qing Li, Yang Lu
Neural Networks, vol. 53, pp. 40-51, 2014.
- Hyperspectral Image Classification Based on Regularized Sparse Representation
Haoliang Yuan, Yuan Yan Tang, Yang Lu, Lina Yang, Huiwu Luo
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, vol. 7, no. 6, pp. 2174-2182, 2014.
- Spectral-Spatial Classification of Hyperspectral Image Based on Discriminant Analysis
Haoliang Yuan, Yuan Yan Tang, Yang Lu, Lina Yang, Huiwu Luo
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, vol. 7, no. 6, pp. 2035-2043, 2014.
- The Generalization Performance of Regularized Regression Algorithms Based on Markov Sampling
Bin Zou, Yuan Yan Tang, Zong Ben Xu, Luo Qing Li, Jie Xu, Yang Lu
IEEE Transactions on Cybernetics (TCYB), vol. 44, no. 9, pp. 1497-1507, 2014.

Conference Publications

- Dynamic Weighted Majority for Incremental Learning of Imbalanced Data Streams with Concept Drift
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
Proceedings of International Joint Conference on Artificial Intelligence (IJCAI), pp. 2393-2399, Melbourne, Australia, August 19-25, 2017.

- **GOBoost: G-mean Optimized Boosting Framework for Class Imbalance Learning**
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
Proceedings of the 12th World Congress on Intelligent Control and Automation (WCICA), pp. 3149-3154, Guilin, China, June 12-15, 2016.
- **Hybrid Sampling with Bagging for Class Imbalance Learning**
Yang Lu, Yiu-ming Cheung, and Yuan Yan Tang
Proceedings of Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), pp. 14-26, Auckland, New Zealand, April 19-22, 2016. (Long oral presentation 39/307)
- **Learning Performance of DAGSVM Algorithm Based on Markov Sampling**
Jie Xu, **Yang Lu**, Bin Zou
Proceedings of International Conference on Machine Learning and Cybernetics (ICMLC), pp. 910-915, Guangzhou, China, July 12-15, 2015.
- **A Novel Method for Protein Structure Retrieval Using Tableau Representation and Sparse Coding**
Yang Lu, Lina Yang, Haoliang Yuan, Yulong Wang, Huiwu Luo and Yuan Yan Tang
Proceedings of IEEE International Conference on Systems, Man and Cybernetics (SMC), pp. 4042-4046, San Diego, USA, October 5-8, 2014.
- **Sparse Representation Using Contextual Information for Hyperspectral Image Classification**
Haoliang Yuan, **Yang Lu**, Lina Yang, Huiwu Luo, and Yuan Yan Tang
Proceedings of IEEE International Conference on Cybernetics (CYBCONF), pp. 138-143, Lausanne, Switzerland, June 13-15, 2013.
- **Spectral-Spatial Linear Discriminate Analysis for Hyperspectral Image Classification**
Haoliang Yuan, **Yang Lu**, Lina Yang, Huiwu Luo, and Yuan Yan Tang
Proceedings of IEEE International Conference on Cybernetics (CYBCONF), pp. 144-149, Lausanne, Switzerland, June 13-15, 2013.

LANGUAGES

- Chinese-Mandarin(Native speaker)
- Chinese-Cantonese(Master)
- English(Fluent)

PROFESSIONAL SKILLS

- Advanced skills in Python (numpy, scikit-learn, pandas) and Matlab, especially in machine learning applications
- Advanced skills in TensorFlow and deep learning framework
- Advanced skills in C++, Java, C, SQL, as well as data structure and algorithm
- Experienced with Linux platform and shell commands

RESEARCH INTERESTS

- Class imbalance learning
- Deep learning based recommender system

- Ensemble learning
- Online learning
- Unsupervised learning and clustering
- Hyperspectral image processing

ACADEMIC AWARDS AND RECOGNITION

2008~2012:	Dean's honor list, awarded by University of Macau
2012~2014:	Postgraduate studentship by University of Macau
June 2014:	Master of science with excellent graduation award by University
of	Macau
March 2016:	Teaching assistant performance award by Hong Kong Baptist
	University
August 2016:	Excellent teaching assistant performance award by Hong Kong
	Baptist University
June 2017:	Honorable mention at the 20th HKBU-COMP research
	postgraduate symposium by Hong Kong Baptist University
August 2017:	First runner-up at postgraduate student research paper
	competition 2016-2017 by IEEE (Hong Kong) Computational
	Intelligence Chapter