

# 卢杨

## 个人信息

出生日期: 1990年4月25日  
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## 教育背景

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|------------------|---|
| 2014年9月~2019年8月: | 香港浸会大学, 计算机科学, 哲学博士学位 (GPA 4.0/4.0), 导师: 张晓明教授 (IEEE Fellow)                |
| 2012年9月~2014年8月: | 澳门大学, 软件工程, 理学硕士学位 (GPA: 3.57/4.0, 专业排名前5%, 杰出毕业生), 导师: 唐远炎教授 (IEEE Fellow) |
| 2008年9月~2012年5月: | 澳门大学, 软件工程, 理学学士学位 (GPA: 3.55/4.0, 专业排名前5%)                                 |
| 2005年9月~2008年6月: | 福建省福州第八中学   |

## 工作经历

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| 2019年10月~现今:     | 助理教授, 计算机科学系, 信息学院, 厦门大学      |
| 2018年5月~2019年4月: | 实习研究员, 金融数据应用部, 腾讯            |
| 2014年9月~2017年6月: | 助教, 香港浸会大学                    |
| 2012年9月~2014年6月: | 助教, 澳门大学                      |
| 2012年6月~2012年8月: | 实习研究员, 智能图文信息处理研究室, 清华大学电子工程系 |

## 学术成果

### 期刊论文

- 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)*, DOI:10.1109/TNNLS.2019.2951814. (JCR 1区)
- 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)*, DOI:10.1109/

TNNLS.2019.2944962. (JCR 1区)

- 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. (JCR 1区)
- 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. (JCR 1区)
- 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. (导师一作) (JCR 2区)
- 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. (JCR 3区)
- 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. (JCR 1区)
- 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. (JCR 2区)
- 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 (JSTAR)*, vol. 7, no. 6, pp. 2174-2182, 2014. (JCR 3区)
- 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 (JSTAR)*, vol. 7, no. 6, pp. 2035-2043, 2014. (JCR 3区)
- 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. (JCR 1区)

## 会议论文

- 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. (CCF A类)

- **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) (CCF C类)

- **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. (CCF C类)

- **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.

## 语言能力

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- 普通话（母语）
- 粤语（精通）
- 英语（流利）

## 专业技能

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- 精通Python (numpy, scikit-learn, pandas) , Matlab, 以及在机器学习中的应用
- 精通TensorFlow以及深度学习框架
- 熟悉C++, Java, C, SQL, 以及数据结构与算法
- 了解Linux平台, Shell指令

## 研究方向

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- 类别不平衡学习 (Class imbalance learning)

- 深度推荐系统 (Deep learning based recommender system)
- 集成学习 (Ensemble learning)
- 在线学习 (Online learning)
- 无监督学习与聚类 (Unsupervised learning and clustering)
- 高光谱图像处理 (Hyperspectral image processing)

## 学术奖项

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|            |                          |
|------------|--------------------------|
| 2008~2012: | 院长特殊荣誉奖, 澳门大学            |
| 2012~2014: | 研究生奖学金, 澳门大学             |
| 2014年6月:   | 杰出硕士毕业生, 澳门大学            |
| 2016年3月:   | 优秀助教奖, 香港浸会大学            |
| 2016年8月:   | 杰出助教奖, 香港浸会大学            |
| 2017年6月:   | 第20届研究生座谈会荣誉研究奖, 香港浸会大学  |
| 2017年8月:   | 研究生论文竞赛二等奖, IEEE香港智能计算分会 |