Assistant Professor Liang, Yanyan

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Academic Qualification:

Ph.D., 2009, Macau University of Science and Technology, in Computer technology and Its Application.

M.Sc., 2006, Macau University of Science and Technology, in Information Technology.

B.Eng., 2004, Chongqing University of Communications and Posts, in Communication Engineering.

Teaching Area

Computer Organization (Undergraduate)

Computer Hardware Experiment (Undergraduate)

Computer Architecture (MSc in IT)

Data Mining (MSc in IT and Applied Math and Data Science)

Advanced Topic in Data Science (MSc in Applied Math and Data Science)

Advanced Topic in Programming for Data Science (MSc in Applied Math and Data Science)

Research Area

Machine Learning, Deep Learning, Image Processing, Computer Vision, Artificial Intelligence

Computer Architeture, Parallel Computing and Distributed Computing

AI chips for big data and machine learning: GPUs, FPGAs

Working Experience

10/2014-Present, Assistant Professor, Macau University of Science and Technology.

07/2013-09/2014, Research Scientist, in Faculty of Information Technology, Macau University of Science and Techno

02/2013-06/2013, Part-time Associate Professor, in College of Information Technology, Beijing Normal University, Zhuhai Campus.

11/2010-01/2013, Post-Doc Research Fellow, in Space Science Institution, Macau University of Science and

07/2009-10/2010, Research Assistant, in Faculty of Information Technology, Macau University of Science and Technology.

09/2008-06-2009, Part-time Lecturer, in Faculty of Information Technology, Macau University of Science and Technology.

02/2004-07/2004, Embedded System R&D Engineer, in Shenzhen R&D Institution, Beijing Harbour Networks Ltd.

Academic Publication (selected, since 2013)

***corresponding author 通訊作者**)

1. Xuxin Lin, **Yanyan Liang***, Jun Wan, Chi Lin, Stan Z. Li. Region-based Context Enhanced Network for Robust Multiple Face Alignment. *IEEE Transactions on Multimedia* , DOI: 10.1109/TMM.2019.2916455. (**SCI IF = 5.452**, JCR Q1 journal, rank 4/107 in COMPUTER SCIENCE, SOFTWARE ENGINEERING – SCIE, according to JCR 2018)

2. Xuxin Lin, Jun Wan, Yiliang Xie, Shifeng Zhang, Chi Lin, **Yanyan Liang***, Guodong Guo, Stan Z. Li. Task-oriented Feature-fused Network with Multi-variate Dataset for Joint Face Analysis. *IEEE Transactions on Cybernetics* , DOI: 10.1109/TCYB.2019.2917049. (**SCI IF = 10.387**, JCR Q1 journal, rank 4/133 in COMPUTER SCIENCE, SOFTWARE ENGINEERING – SCIE and rank 1/62 in AUTOMATION & CONTROL SYSTEMS – SCIE, according to JCR 2018)

3. Tao Luo, **Yanyan Liang***, Wing-Huen Ip. Efficient Starspots Reconstruction via Light-curve Inversion with Bipartite Regularization. *Astronomical Journal* , DOI: 10.3847/1538-3881/ab1b46. (**SCI IF = 5.497**, JCR Q1 journal, rank 14/69 in ASTRONOMY & ASTROPHYSICS - SCIE, according to JCR 2018)

4. Haozhi Huang, **Yanyan Liang***, Learning Robust Embedding Representations with Hybrid Loss for Both Classification and Verification, *IEEE Access* , PP(99):1-1. (**SCI IF = 4.098**, JCR Q1 journal, rank 23/155 in COMPUTER SCIENCE, INFORMATION SYSTEMS - SCIE, according to JCR 2018)

5. Haozhi Huang, **<u>Yanyan Liang*</u>**. Constrained Loss Function for Classification Problems, Computer Vision Conference, *CVC 2019* . (EI)

6. Chi Lin, Xuxin Lin, Yiliang Xie, **<u>Yanyan Liang*</u>**. Abnormal Gesture Recognition Based on Multi-Model Fusion Strategy. *Machine Vision and Applications* , 2018: 1-12. (**SCI IF = 1.788**, JCR Q1 journal, rank 152/265 in ENGINEERING, ELECTRICAL & ELECTRONIC - SCIE, according to JCR 2018)

7. Chi Lin, Jun Wan, **<u>Yanyan Liang*</u>**, Stan Z. Li. Large-scale Isolated Gesture Recognition Using Masked Res-C3D Network and Skeleton LSTM, In Proceedings of the 13th IEEE International Conference on Automatic Face and Gesture Recognition, *FG 2018* . (EI, CCF Rank C Conference)

8. Haozhi Huang, **<u>Yanyan Liang*</u>**, Ah Chung Tsoi, Sio-Long Lo, Alex Po Leung. A Novel Bagged Particle Filter for Object Tracking, *ACM SIGGRAPH VRCAI 2016* . (EI)

9. Shuai Zhou, **Yanyan Liang**, Jun Wan, Stan Z. Li. Facial Expression Recognition Based on Multi-scale CNNs, in Biometric Recognition, Chinese Conference on Biometric Recognition, *CCBR 2016* : 503-510. LNCS 9967. (EI)

10. 黃靜, *梁延研*, 蔡占川, 方樺, 唐澤聖. 基于嫦娥一號探月數據虛擬月球立體顯示系統. *計算機工程與設計* . 2015, 36(1): 236-240.

11. Jun Wan, Qiuqi Ruan, Gaoyun An, Wei Li, **Yanyan Liang**, Ruizhen Zhao. The Dynamic Model Embed in Augmented Graph Cuts for Robust Hand Tracking and Segmentation in Videos. *Mathematical Problems in Engineering* , 2014:1-12. (**SCI IF = 1.179**, JCR Q2 journal, rank 69/105 in MATHEMATICS, INTERDISCIPLINARY APPLICATIONS - SCIE, according to JCR 2018)

12. **Yanyan Liang**, Zhanchuan Cai, Dongxu Qi, Zesheng Tang. Scale-Invariant V-Transform and Its Application to Signal Denoising. *International Journal of Wavelets, Multiresolution and Information Processing* . 2013, 11(05): 106-118. **(SCI IF = 0.523)**

13. Un-Hong Wong, Yunzhao Wu, Hon-Cheng Wong, **Yanyan Liang**, Zesheng Tang. Modeling the Reflectance of the Lunar Regolith by a New Method Combining Monte Carlo Ray Tracing and Hapke's Model with Application to Chang'E-1 IIM Data. *The Scientific World Journal* , 2014. **(SCI IF = 1.550)**

14. *梁延研*, 蔡占川, 李堅, 齊東旭, 唐澤聖. 尺度不變V變換及其應用, *計算機學報* . 2013, 22(5):610-618. (EI)

Professional Certification and Awards

The team formed by Dongxu Qi, Zhanchuan Cai, **Yanyan Liang**, Jian Li and KinTak U obtained the 3rd prize of 2012 "Natural Science Award" from Science and Technology Development Fund, MSAR (FDCT) with the topic of "Theory on Non-continuous Orthogonal Function and its application on the massive data processing".

Professional Society Membership

IEEE Member (2009 - Present)