Weiyang (Wayne) Liu

PERSONAL INFORMATION	Address: 409 Carlyle Lake, Decatur, GA, U.S. Born in 1992, Chinese Citizen Tel: 1-404-731-8868 Email: wyliu@pku.edu.cn Homepage: http://wyliu.com
RESEARCH INTERESTS	Statistical Machine Learning, Computer vision, Representation Learning, Dictionary/Subspace Learning, Deep Convolutional Neural Networks, Dimensionality Reduction.
PROGRAMMING SKILLS	C/C++, Matlab, R; OpenCV, Caffe, Torch;

EDUCATION

Peking University (PKU), Beijing, China

M.S., School of Electronic and Computer Engineering   2013 - 2016
- Major in Electrical and Computer Engineering (graduated with best M.S. Thesis award)
- Overall GPA:3.84/4.0 (90.8/100), Major GPA[1]: 3.85/4.0 (91.2/100), Rank:1/30
- Advisor: Prof. Meng Yang, *Member*, *IEEE*

Kyoto University, Kyoto, Japan   2015
Exchange Student at Graduate School of Informatics
Attendee of the 29th Machine Learning Summer School (MLSS 2015)

South China University of Technology (SCUT), (985&211), Guangzhou, China

B.Eng., School of Electronic and Information Engineering   2009 - 2013
- Major in Information Engineering (graduated with highest honors and best thesis award)
- Overall GPA:3.79/4.0, Major GPA[2]: 3.85/4.0, Rank:12/272 (Top 5%)

EXPERIENCE

Research Assistant   Aug 2016 - Present
Machine Learning Group, College of Computing, Georgia Institute of Technology
Projects: Curriculum Learning, Label-noisy Classification, Deep Learning;

Research Assistant   Sep 2013 - Aug 2016
Smart Learning and Vision Lab
Advisor: Prof. Meng Yang, Prof. Yuexian Zou
Projects: Discriminative dictionary learning, robust ConvNet, and representation learning with applications to computer vision;

Research Intern   Jun 2014 - Aug 2014
Shenzhen Intelligent Media and Speech Lab (IMSL)
Mentor: Prof. Yi Liu
Projects: We improved the performance of Shazam algorithm (a music search algorithm) and made the algorithm scalable to million songs dataset.

AWARDS & HONORS

Graduate Honors and Awards

PKU Best Master Thesis Award	2016
Beijing Outstanding Graduate Award (Top 3%)	2016
PKU Outstanding Graduate Award (Top 15%)	2016
National Scholarship (Ministry of Education of China, top 3%)	2015
National Scholarship (Ministry of Education of China, top 3%)	2014
PKU Graduate Entrance Fellowship (Highest Grade, Top 5%)	2013
First Prize (Top 2%, **Highest Award**), National Postgraduate Mathematic Contest in Modeling	2013
PKU Academic Innovation Award (**Highest Graduate Academic Honor**, Top 1%)	2015
Pacemaker to Outstanding Student (Top 1%)	2015
Outstanding Student (Top 5%)	2014
MLSS Travel Grant from Kyoto Univ.	2015
IEEE ICIP SPS Travel Grant	2014
Champion of the recognition contest in the class of Pattern Recognition	2014

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[1]Exclude Chinese politics and language courses
[2]Exclude P.E., Chinese politics, social science and language courses

Undergraduate Honors and Awards

Outstanding Winner (**Highest Award**, 14/3500+), Mathematical Contest in Modeling (**MCM/ICM**)	2011
"Hong Ping Chang Qing" **Highest Grade Academic Scholarship** (top 1%)	2013
National Scholarship (Ministry of Education of China, top 5%)	2012
President's Undergraduate List (only 10 awardees, **highest undergraduate honor**)	2012
Best Bachelor Thesis Award (Top 1.5%)	2013
Hitachi Scholarship (Top 10%)	2011
SCUT Scholarship (Top 20%)	2010
Meritorious Winner, Mathematical Contest in Modeling (**MCM**)	2012
First Prize (Top 5%, highest award), Central China Mathematical Contest in Modeling	2011
Second Prize, China Undergraduate Mathematical Contest in Modeling	2011
Outstanding Student (Top 20%)	2010 & 2011 & 2012

SELECTED
PUBLICATIONS

arXiv Preprints

1. **Weiyang Liu**, Rongmei Lin, and Meng Yang. "Robust Elastic Net Regression." *arXiv:1511.04690*, 2015.

Journal Papers

1. **Weiyang Liu**, Zhiding Yu, Lijia Lu, Yandong Wen, Hui Li, and Yuexian Zou. "KCRC-LCD: Discriminative Kernel Collaborative Representation with Locality Constrained Dictionary for Visual Categorization." *Pattern Recognition*, vol. 48(10), page 3076–3092, 2015.

2. Yandong Wen, **Weiyang Liu**, Meng Yang, Yuli Fu, Youjun Xiang, and Rui Hu. "Structured Occlusion Coding for Robust Face Recognition." *Neurocomputing*, vol. 178, page 11-24, 2016.

Conference Papers

1. **Weiyang Liu**, Yandong Wen, Zhiding Yu, and Meng Yang. "Large-Margin Softmax Loss for Convolutional Neural Networks.", *International Conference on Machine Learning (**ICML'16**)*, 2016. (Oral)

2. **Weiyang Liu**, Zhiding Yu, Yandong Wen, Rongmei Lin, and Meng Yang. "Jointly Learning Non-negative Projection and Dictionary with Discriminative Graph Constraints for Classification.", *British Machine Vision Conference (**BMVC'16**)*, 2016.

3. Yandong Wen, **Weiyang Liu**, Zhiding Yu, and Meng Yang. "Efficient Misalignment-robust Face Recognition via Locality-constrained Representation." *IEEE International Conference on Image Processing (**ICIP'16**)*, 2016.

4. Meng Yang, **Weiyang Liu**, Weixin Luo, and Linlin Shen. "Analysis-Synthesis Dictionary Learning for Universality-Particularity Representation based Classification." *AAAI Conference on Artificial Intelligence. (**AAAI'16**)*, 2016. (**The first author is my advisor.**)

5. Zhiding Yu, **Weiyang Liu**, Wenbo Liu, Yingzhen Yang, Ming Li, and Vijayakumar Bhagavatula. "On Order-Constrained Transitive Distance Clustering." *AAAI Conference on Artificial Intelligence. (**AAAI'16**)*, 2016.

6. Zhiding Yu, **Weiyang Liu**, Wenbo Liu, Xi Peng, Zhuo Hui, and B.V.K. Vijaya Kumar. "Generalized Transitive Distance with Minimum Spanning Random Forest." *International Joint Conference on Artificial Intelligence (**IJCAI'15**)*, 2015.

7. **Weiyang Liu**, Zhiding Yu, Yandong Wen, Meng Yang, and Yuexian Zou. "Multi-Kernel Collaborative Representation for Image Classification." *IEEE International Conference on Image Processing (**ICIP'15**)*, 2015. (Oral ∼15%)

8. **Weiyang Liu**, Zhiding Yu, Meng Yang, Lijia Lu, and Yuexian Zou. "Joint Kernel Dictionary and Classifier Learning for Sparse Coding via Locality Preserving K-SVD." *IEEE International Conference on Multimedia and Expo. (**ICME'15**)*, 2015. (Oral ∼15%)

9. Meng Yang, **Weiyang Liu**, and Linlin Shen. "Joint Regularized Nearest Points for Image Set based Face Recognition." *IEEE 11th International Conference on Automatic Face and Gesture Recognition (**FG'15**)*, 2015. (**The first author is my advisor.**)

10. **Weiyang Liu**, Lijia Lu, Hui Li, Wei Wang, and Yuexian Zou. "A Novel Kernel Collaborative Representation Approach for Image Classification." *IEEE International Conference on Image Processing (**ICIP'14**)*, 2014 (Oral ∼12%).

ACADEMIC
SERVICE

Reviewer for IEEE Trans. on Image Processing.
Reviewer for IEEE Trans. on Neural Networks and Learning Systems.
Reviewer for IEEE Signal Processing Letters.
Reviewer for NIPS'16, AAAI'16, ICCV'15.