

Xiangyong Cao

PhD Candidate

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Basic Information

- Gender: Male
- Date of Birth: April 5, 1990
- Place of Birth: Chongqing, P. R. China
- Citizenship: P. R. China

Education

- 2016.9 - present **Doctor of Electrical Engineering**, *Columbia University*, New York, USA.
Supervisor: Prof. John Paisley
- 2014.3 - 2016.9 **Doctor of Mathematics**, *Xi'an Jiaotong University*, Xi'an, P. R. China.
Supervisor: Prof. Zongben Xu
- 2012.9 - 2014.2 **Master of Mathematics**, *Xi'an Jiaotong University*, Xi'an, P. R. China.
Supervisor: Prof. Zongben Xu
- 2008.9 - 2012.6 **Bachelor of Science**, *Xi'an Jiaotong University*, Xi'an, P. R. China.

Bachelor thesis

title *Research on the theoretical relationship between low-rank matrix factorization and robust principal component analysis*

supervisor Prof. Zongben Xu

Research Interest

Machine learning, Data Mining and Computer Vision. Current focuses:

- Low-rank matrix factorization
- Statistical Bayesian inference in machine learning
- Hyperspectral Image Denosing and Classification
- Social Network Analysis
- Deep Learning

Teaching Experience

- 2012.3 - 2012.6 **Teaching Assistant**, *School of Mathematics and Statistics, Xi'an Jiaotong University*, Xi'an, P. R. China.
Subject: Advanced Mathematics

Publications

- [1] **Xiangyong Cao**, Xiangyu Chang, and Zongben Xu. [Community Detection for Clustered Attributed Graphs via a Variational EM Algorithm](#). Proceedings of the 2014 International Conference on Big Data Science and Computing, 2014.

- [2] **Xiangyong Cao**, Yang Chen, Qian Zhao, Deyu Meng, Yao Wang, Dong Wang, and Zongben Xu. [Low-rank Matrix Factorization under General Mixture Noise Distributions](#). IEEE International Conference on Computer Vision, 2015.
- [3] **Xiangyong Cao**, Qian Zhao, Deyu Meng, Yang Chen and Zongben Xu. [Robust Low-rank Matrix Factorization under General Mixture Noise Distributions](#). *Transactions on Image Processing*, 2016.
- [4] Xiangyu Chang, **Xiangyong Cao**, Dong Liang and Xiaolin Lu. [Model-based clustering with nonconvex penalty](#). *IEEE International Conference on Cyber Technology in Automation, Control, and Intelligent Systems (CYBER)*, 2016.
- [5] **Xiangyong Cao**, Lin Xu, Deyu Meng, Qian Zhao, Zongben Xu. [Integration of 3-Dimensional Discrete Wavelet Transform and Markov Random Field for Hyperspectral Image Classification](#). *NeuroComputing*, 2016.
- [6] Jing Yao, **Xiangyong Cao**, Qian Zhao, Deyu Meng, Zongben Xu. [Robust Subspace Clustering via Penalized Mixture of Gaussian](#). (co-first author) *Pattern Recognition Under Review*.
- [7] Yang Chen, **Xiangyong Cao**, Qian Zhao, Deyu Meng, Zongben Xu. [Denoising Hyperspectral Image with Non-i.i.d Noise Structure](#). *Transactions on Cybernetics Under Review*.

Social Services

- 2014.3 - present **Monitor** of our PhD class at Xi'an Jiaotong University.
- 2012.9 - 2013.9 **Monitor** of our graduate class at Xi'an Jiaotong University.

Honors/Awards

- 2013 **National Scholarship for Graduate students.**
Awarded to the top 2% graduate students at Xi'an Jiaotong University
- 2012 **Excellent Graduate, Xi'an Jiaotong University.**
Awarded to the top 10% graduates at Xi'an Jiaotong University
- 2009 & 2011 **Excellent Student, Xi'an Jiaotong University.**
Awarded to the top 10% undergraduate students at Xi'an Jiaotong University
- 2011 **National Scholarship for Encouragement.**
Awarded to the top 5% undergraduate students at Xi'an Jiaotong University
- 2009 & 2010 **Si Yuan Scholarship for excellent students.**
Awarded to the top 15% undergraduate students at Xi'an Jiaotong University

Travel History

Chile, 2015

Languages

Mandarin	Fluent	Native
English	Good Level	Passed College English Test Band 6

Computer Skills

Platforms Windows

Languages Matlab, Mathematics
Others \LaTeX , Microsoft Office