Zhipeng Xue

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Summary

Zhipeng Xue received the bachelor's degree in Communication Engineering from Southwest JiaoTong University in 2015. He was a graduate of Mao Yisheng Honors College. From 2015 to now, he was a Ph.D. student at School of Information Science and Technology, ShanghaiTech University.
Zhipeng Xue focuses on research areas of high-dimensional statistical signal processing and machine learning. He is now working with Professor Xiaojun Yuan in UESTC and Professor Yang Yang in ShanghaiTech.

Education

- B.S. Communication Engineering, Mao Yisheng Honors College, Southwest Jiaotong University, Chengdu, from 2011 to 2015.
- Ph.D. student, Electronic Engineering, ShanghaiTech University, Shanghai, from 2015-present, will graduate in 2020.

Research Interest

My research interest is in the general areas of signal processing including

- High-Dimensional Statistical Signal Processing (Compressed sensing, low-rank matrix recovery, robust principle component analysis, dictionary learning, recommender system, background subtraction, message passing, etc.)
- Machine Learning (Subspace Clustering, principle component analysis, phase retrieval)

Publications and Patents

Accepted Conference Papers:

Xue, Zhipeng, Junjie Ma, and Xiaojun Yuan. "D-OAMP: A denoising-based signal recovery algorithm for compressed sensing." In 2016 IEEE Global Conference on Signal and Information Processing (GlobalSIP), pp. 267-271. IEEE, 2016.

Xue, Zhipeng, Xiaojun Yuan, and Junjie Ma. "Tarm: A turbo-type algorithm for low-rank matrix recovery." In 2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 4614-4618. IEEE, 2018.

Accepted Journal Papers:

Xue, Zhipeng, Junjie Ma, and Xiaojun Yuan. "Denoising-Based Turbo Compressed Sensing." IEEE Access 5 (2017): 7193-7204.

Xue, Zhipeng, Xiaojun Yuan, and Yang Yang. "Turbo-Type Message Passing Algorithms for Compressed Robust Principal Component Analysis." IEEE Journal of Selected Topics in Signal Processing 12, no. 6 (2018): 1182-1196.

Submitted Journal Papers:

TARM: A Turbo-type Algorithm for Affine Rank Minimization. (submitted to IEEE Transactions on Signal Processing)

Recent Research:

Message Passing algorithm for Compressed Video Background Subtraction

Patents:

一种压缩感知恢复方法（发明专利，已授权，申请号：201610613353.8）

Programming Skills

Programming Languages:

- Matlab
- C/C++
- Python (Numpy, Matplotlib, PyTorch/Tensorflow)

– Javascript (ES6)