

# Zhipeng Xue

ShanghaiTech University  
School of Information Science and Technology  
393 Huaxia Road, 201210, Shanghai

Phone: (86) 18516572515  
Email: [xuezhp@shanghaitech.edu.cn](mailto:xuezhp@shanghaitech.edu.cn)  
Homepage: <http://magicsensing.com>

## 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 focus 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)