

# Xiangyu ZHANG

## PHD STUDENT

COMMUNICATIONS AND INFORMATION ENGINEERING

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## PROFILE

I am a PHD student in Southeast University, majoring in Intelligent Communications. After stepped in electronic information engineering for 7 years, I have mastered the basic knowledge of communication, signal processing, intelligence algorithm. All of these filed foster my sagacious perception in mathematics. Besides, I have already had excellent skills in MATLAB\Python programming, which established on 50000 lines code experience. Working on the combination of AI and 5G, I, now, have a faith that the future communication will revolutionize the human society and people's lifestyles.

## PROJECTS 复数

### XXX LARGE-SCALE UNDERWATER ARRAY SYSTEM

Nanjing Institute of Electronic Technology | 2016 - 2018

To solve the performance reduction of sonar detection ability in submarine that has been equipped the brand silence technology, we have established a large-scale underwater array system used by a destroyer to detect submarines, in this project showing excellent performance in test.

**My work focus on reducing the Calculated amount and improving the resolution.**

### UNDERWATER WEAK TARGET DETECTION TECHNOLOGY

Nanjing Institute of Electronic Technology | 2017

The complexity of underwater environment that has plenty of noise has restricted the sonar detecting ability. To extract the signal generated by target from noisy underground background, **I focused on analysing the feature of target signal and proposed a method to improve the sonar detecting ability**

## PUBLICATIONS

### ROBUST DIRECTION-OF-ARRIVAL ESTIMATION BASED ON SPARSE ASYMPTOTIC MINIMUM VARIANCE

Xiangyu Zhang, Jun sun, Xingrong Cao | 2018

A Direction-Of-Arrival (DOA) estimation algorithm named Robust Sparse Asymptotic Minimum Variance (RSAMV) has proposed in this paper, showing the feature of ultra-low side lobe and high sparseness and effectively reducing weak target loss.

### WIDEBAND SIGNAL DOA ESTIMATION BASED ON SPARSE ASYMPTOTIC MINIMUM VARIANCE

Xiangyu Zhang, Jun sun, Xingrong Cao

A wideband signals direction-of-arrival (DOA) algorithm based on sparse asymptotic minimum variance(SAMV) is presented in this paper, which can effectively improve spatial resolution and anti-coherent-interference performance

## EDUCATION

### DOCTOR OF ENGINEERING

Southeast University | 2018 – Now

Research work as follow:

- The dynamic spectrum resource allocation and interference management in WLAN using multi-agent reinforcement learning tech
- Hybrid Beamforming for Massive MIMO with end-to-end DNN network.
- The joint control technologies in drones, including trajectory, power, user schedule.

### MASTER OF ENGINEERING

Nanjing Institute of Electronic Technology | 2015 - 2018

Ranking: Top 10% out of 20 students in the major

I have study the Array Processing and Compressed Sensing.

I have published two papers and participated 3 Military fund projects. Besides I have get first-class scholarship.

### BACHELOR OF SCIENCE

Harbin Institute of Technology | 2011 - 2015

I learned the fundamental class of radar and electronic countermeasure. Also, FPGA was my self-culture.

## SKILLS

- Excellent skills in programming in matlab and python
- Skilful at mathematics and statistics, especially in convex optimization、the theory of matrix and game theory

## ACTIVITIES

**PRESIDENT OF THE COLLEGE STUDENT UNION SCIENCE AND TECHNOLOGY ASSOCIATION | 2014**