

# Mingrui Yuan

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## Research Interests

Speech Processing, Speaker Verification, Audio Signal Processing, Machine Learning, Sequence Learning

## Education

### Tsinghua University

B.S. IN DEPT. OF ELECTRONIC ENGINEERING

Haidian District, Beijing, 100084

Aug 2016 - Present

## Grades

- GPA 3.77/4.0
- TOEFL 107
- GRE 166(Verbal)+170(Quantitative)+4.0(Analytical Writing)

## Experiences

### University of Rochester, Audio Information Research (AIR) Lab

160 Trustee Rd, Rochester, NY 14642

VISITING STUDENT RESEARCHER

Jun 2019 - Sep 2019

- Worked with Professor Zhiyao Duan on spoofing speaker verification (SV) systems.
- Built an efficient multi-speaker text-to-speech model trained with GAN.
- Performed experiments on spoofing effects of synthetic speech on SV systems and anti-spoofing systems.
- [Click to read REPORT. https://github.com/MingruiYuan/cv\\_reports/tree/master/SpoofSV](https://github.com/MingruiYuan/cv_reports/tree/master/SpoofSV)
- [Code \(coming soon\).](#)

### Tsinghua University, Speech and Audio Technology Lab (SATLAB)

Haidian District, Beijing, 100084

STUDENT RESEARCHER

May 2018 - Present

- Worked with Professor Weiqiang Zhang on speech processing and speaker verification.
- Investigated functions of different features in replay attack detection.  
[Click to read REPORT. https://github.com/MingruiYuan/cv\\_reports/tree/master/ReplayAttackDetection](https://github.com/MingruiYuan/cv_reports/tree/master/ReplayAttackDetection)
- Investigated real-time speech enhancement based on recurrent neural networks.

### Tsinghua University

Haidian District, Beijing, 100084

COURSE PROJECT

Oct 2018 - Dec 2018

- Course project of *Introduction to Auditory-visual Information System*.
- Source separation and localization based on auditory and visual information.

## Background

### Mathematics

CALCULUS, LINEAR ALGEBRA, FUNCTIONS OF COMPLEX VARIABLES, PROBABILITY, STOCHASTIC PROCESSES

### Professional Courses

SIGNALS AND SYSTEMS, DIGITAL SIGNAL PROCESSING, SPEECH PROCESSING, STATISTICAL SIGNAL PROCESSING, MACHINE LEARNING, DEEP LEARNING, INTRODUCTION TO AUDITORY-VISUAL INFORMATION SYSTEM

### Programming

C PYTHON MATLAB PROGRAMMING, DATA STRUCTURES AND ALGORITHMS

## Honors & Awards

### Academic Excellence Award

AWARDED BY DEPT. OF ELECTRONIC ENGINEERING

2017, 2018