Mingrui **Yuan**

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Research Interests

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

Education

Tsinghua University *Haidian District, Beijing, 100084*

B.S. in Dept. of Electronic Engineering *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`
- `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`
- Investigated real-time speech enhancement based on recurrent neural networks.

Tsinghua University *Haidian District, Beijing, 100084*

Course Project *Jan 2019 - Feb 2019*

- Course project of *Stochastic Processes*.
- Investigated algorithms for level set estimation.
- `Click to read REPORT. https://github.com/MingruiYuan/cv_reports/tree/master/ReplayAttackDetection`

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*