

# YONGJIAN FU

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## RESEARCH INTERESTS

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Wireless system, mobile computing, acoustic sensing.

## EDUCATION

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**Central South University, GPA: 3.7/4.0**

2021 - 2026 (Expected)

*Ph.D.* in Computer Science

*Advisor* : Prof. Yaoxue Zhang and Prof. Ju Ren

**Central South University, GPA: 91.23/100 (Top %5)**

2017 – 2021

*B.Eng.* in Internet of Things Engineering

## EXPERIENCE

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**Microsoft Research Asia, Shanghai**

2022.12 - 2023.09

*Advisor*: Prof. Lili Qiu

Project: **Acoustic Imaging using Metasurface** (primary author)

- Develop a metasurface-based acoustic imaging system to minimize the needs of transceivers.
- Design an image reconstruction algorithm to support operation in real-time and low SNR conditions.
- Comprehensively evaluate the performance of the imaging system in various scenarios.

Output: **Submitted to ACM MobiSys'24**

Project: **Boosting spatial resolution of mmWave sensing using incident angle resonance** (co-primary author)

- Estimate AoA through resonance between incident angle and metasurface.
- Address practical issues in commercial radar deployment, like differentiating positive and negative angles.

**Tsinghua University, Beijing**

2022.06 - 2022.12

Research Assistant, Department of Computer Science and Technology

*Advisor*: Prof. Ju Ren

## PUBLICATIONS

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(\* denotes co-primary author; and # denotes corresponding author)

- [1] **Yongjian Fu**, Yongzhao Zhang, Yu Lu, Lili Qiu, Yichao Chen, Yezhou Wang, Mei Wang, Ju Ren, and Yaoxue Zhang. “CAIM: Compressive Acoustic Imaging using Metasurface,” submitted to **ACM MobiSys 2024**.
- [2] Lili Chen, Bozhong Yu, **Yongjian Fu**, Ju Ren, Hao Pan, Jeremy Gummeson, and Yaoxue Zhang. “Pushing Wireless Charging from Station to Travel,” conditionally accepted by **ACM Mobicom 2024**.
- [3] Shuning Wang, Linghui Zhong, **Yongjian Fu**, Lili Chen, Ju Ren and Yaoxue Zhang. “UFace: Your Smartphone Can “Hear” Your Facial Expression!,” major revision in **ACM Ubicomp 2024**.
- [4] **Yongjian Fu**, Shuning Wang, Linghui Zhong, Lili Chen, Ju Ren and Yaoxue Zhang. “SVoice: Enabling Voice Communication in Silence via Acoustic Sensing on Commodity Devices” in **ACM SenSys 2022**.

## **HONORS & AWARDS**

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Outstanding Graduates of Central South University	2021
Excellent Student of Central South University	2018 & 2019 & 2020
National Inspirational Scholarship	2018 & 2020
The First Prize Scholarship	2018 & 2019