# YANG ZHAO

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# **EDUCATION**

## Imperial College London

2019 - Present

PhD in Backscatter and Wireless Information and Power Transfer

#### Imperial College London

2018 - 2019

MSc Communications and Signal Processing

## University of Liverpool

2016 - 2018

BEng Communications and Electronics



## China Mobile Group, Guangzhou, China

2018

Intern Engineer

- Maintained servers, base stations, and emergency communication vehicles
- Analyzed device power consumption and MRO statistics

## China Mobile Group Design Institute, Guangzhou, China

2017

Intern Assistant

- Summarized commercial solutions of NB-IoT and FDD-LTE (BBU, RRU, microcell)
- Evaluated real-site FDD/TDD-LTE performance (RSRP, SINR, CSFB)

# **♠** RESEARCH

# Metascatter: Unifying Symbiotic Radio and Intelligent Reflecting Surface 2021 – Present

• We propose the concept of Metascatter, which adapts the input probability distribution of a conventional backscatter device based on CSI, to act as both parasitic source of SR and reflecting element of IRS.

## IRS-Aided SWIPT: Joint Waveform, Active and Passive Beamforming Design 2019 – 2020

• This paper considers waveform and beamforming design to boost the rate-energy tradeoff for a practical SWIPT user in an IRS-aided multi-carrier system.

# **EXPERIENCE**

- Know MATLAB, C, C++, Python, HTML, CSS, Apache, Nginx, Git, Docker, PGP, S/MIME
- Have 8-year experience with Linux and 15-year experience with Windows
- Host personal webserver, cloud drive, password vault, image host, email service, and IRC bots
- GTA on Teams (manage group, meeting and assignment), Blackboard (add resource and mark coursework), and Panopto (record and upload lecture)
- Familiar with CSP group, Imperial HPC (use and debug), and ICT routines