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

👥 Work

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
- Familiar with CSP group (since 2018), Imperial HPC (use and debug), and ICT routines