

Jiaqi ZOU

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No. 10 Xitucheng Road, Haidian District, Beijing, China

EDUCATION

Beijing University of Posts and Telecommunications

Beijing, China

Ph.D. student in Information and Communication Engineering

09/2020 – Now

Supervisor: Prof. Songlin Sun

University College London

London, UK

Visiting Ph.D. student (CSC)

11/2022 – 10/2023

Supervisor: Prof. Christos Masouros

Beijing University of Posts and Telecommunications

Beijing, China

B.Eng. in Communication Engineering

09/2016 – 06/2020

“Elite Class” of School of Information and Communications Engineering

GPA: 88.0/100 Rank: 37/571

SELECTED PUBLICATIONS

1. **Zou J**, Liu R, Wang C, et al. Aiming in Harsh Environments: A New Framework for Flexible and Adaptive Resource Management. *IEEE Network* 2022.
2. **Zou J**, Wang C, Liu Y, et al, Vision-Assisted 3-D Predictive Beamforming for Green UAV-to-Vehicle Communications. *IEEE Transactions on Green Communications and Networking*, 2023
3. **Zou J**, Sun S, Masouros C, et al, Energy-Efficient Beamforming Design for Integrated Sensing and Communications Systems. Submitted to *IEEE Transactions on Communications*, 2023. Major revision.
4. Yuan W, **Zou J**, Cui Y, et al, Orthogonal Time Frequency Space and Predictive Beamforming-Enabled URLLC in Vehicular Networks. *IEEE Wireless Communications*, 2023
5. **Zou J**, Sun S, Masouros C, et al, Sensing-Centric Energy-Efficient Waveform Design for Integrated Sensing and Communications. Accepted by *IEEE Global Telecommun. Conf. (GLOBECOM)*. 2023.
6. **Zou J**, Mei K, Sun S. Multi-Scale Video Inverse Tone Mapping with Deformable Alignment. 2020 *IEEE International Conference on Visual Communications and Image Processing (VCIP)*. IEEE, 2020.
Best Paper Award
7. Sun S, **Zou J**, Zou Z, et al. Experience of PYNQ: Tutorials for PYNQ-Z2[M]. Springer Nature, 2023
8. Mei K, Zhu C, **Zou J**, et al. Instance adaptive self-training for unsupervised domain adaptation. *Computer Vision. ECCV* 2020.

RESEARCH EXPERIENCE

Integrated Sensing and Communication

08/2021 – Now

1. Energy efficiency optimization in ISAC systems.
 - Maximize the energy efficiency of the dual-functional waveform, under SINR and Cramer-Rao bound constraints.
 - For the scenarios where sensing is critical, we propose a novel performance metric for characterizing the sensing-centric EE and optimize the metric for sensing a point-like target and an extended target.
 - Investigate the Pareto boundary between communication-centric and sensing-centric EE.

2. Vision-assisted predictive beamforming.

- Propose to utilize the inherent vision functionality of the UAV platform and propose a vision-assisted beamforming framework to reduce communication overhead.

Video Inverse Tone Mapping

12/2019 – 06/2021, 03/2022 – 07/2022

- Graduation project on video enhancement: Align the input consecutive LDR frames by deformable convolutions and design a multi-scale iTM architecture.
- *Best Paper Award from IEEE VCIP 2020. First Prize (BUPT) and Third Prize (Beijing) on China International Univ. Students' "Internet+" Innovation Competition*

Intelligent Fitness Trainer

06/2018 – 05/2019

- Undergraduate innovation project: Obtain users' motion data by an optical camera, apply human pose estimation, and provide motion correction advice. Rated as a National undergraduate innovation project (highest level).

ICT International Project

07/2018 – 12/2018

- Cooperation project with University of Electro-Communications, Japan. Control a monocular robot to get through an obstacle track.

TEACHING EXPERIENCE

Hardware Comprehensive Experiment

2019-2021 Fall

- Teaching Assistant, in charge of experimental part.
- Record the MOOC course including three chapters and ten subsections. (2021)

Comprehensive Communication Experiment (International students courses)

2019 Spring

- Teaching Assistant in charge of experimental part.

SELECTED AWARDS AND HONORS

- IEEE WCNC Student Travel Grant, 2023
- "Longhu" Enterprise Scholarship, 2022
- First-class Doctoral Scholarship of BUPT, 2022&2021
- First-Class Excellent Doctoral Candidate Reserve Program Scholarship of BUPT, 2021
- IEEE VCIP 2020 Best Paper Award, 2020
- Beijing Outstanding Graduate Award, 2020 (Highest honor for graduates by the government of Beijing)
- First-Class BUPT-SICE Excellent Student Creative Foundation, 2019
- First Prize (Meritorious Winner) of the International Mathematical Contest in modeling, 2018
- "JingjiShijie" Enterprise Scholarship, 2017 (Top 1.5% of 571 students)
- Outstanding Volunteer for 2022 Beijing Winter Olympics; Second Place of Medley Relay in Beijing Universities Swimming Championship

ADDITIONAL INFORMATION

- **Computer skills:** MATLAB, Python, C++, LaTeX
- **Language skills:** Mandarin Chinese (Native); English (IELTS: 7.0)
- Reviewer of WCL, OJCOM, WCNC, ICC, GlobeCom. TPC member of WCNC 2022.