Jiaqi ZOU

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WC1E 6BT, London, UK

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 11/2022 – Now
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

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 https://arxiv.org/abs/2307.04002
4. **Zou J,** Cui Y, Liu Y, et al. Energy Efficiency Optimization for Integrated Sensing and Communications Systems. WCNC 2022.
5. **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: 9-12. ***Best Paper Award***
6. Sun S, **Zou J**, Zou Z, et al. Experience of PYNQ: Tutorials for PYNQ-Z2[M]. Springer Nature, 2023
7. 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 a power budget, SINR and Cramer-Rao bound constraint.
   - For the scenarios where sensing is critical, we propose a novel performance metric for characterizing the sensing-centric EE and optimize the metric adopted in the scenario of sensing a point-like target and an extended target.

2. Vision-assisted predictive beamforming.
    - Propose to utilize the inherent vision functionality of the UAV platform and propose a vision-assisted beamforming framework. Reduce the communication overhead of block transmission caused by the high mobility of the target vehicles and the UAV.

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 that enables the network to reconstruct details as well as global features.
- *Best Paper Award from IEEE VCIP 2020.*
- *First Prize (BUPT) and Third Prize (Beijing area) on China International College Students' "Internet+" Innovation and Entrepreneurship Competition*

Intelligent Fitness Trainer 06/2018 – 05/2019

- Undergraduate innovation project: The system obtains users' motion data by optical camera, and then applies human pose estimation, finally providing motion correction advice. The project is 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 graduate set 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.