

# Chen Peng

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## EDUCATION

### University of Southern California (USC), Los Angeles, CA, USA

Ph.D. in Electrical Engineering

Sept. 2020 - Dec. 2025 (exp.)

GPA: 3.93 / 4.0

### Shanghai Jiao Tong University (SJTU), Shanghai, China

B. Eng. in Electrical and Computer Engineering

Sept. 2016 - Jun. 2020

GPA: 3.72 / 4.0

## RESEARCH INTERESTS

Sequential Decision Making, Reinforcement Learning, Causal Inference, Wireless Networks

## PUBLICATIONS

### Journals

- [J3] C. Peng and U. Mitra, "Interference-constrained scheduling of a cognitive multihop underwater acoustic network," *IEEE Journal of Oceanic Engineering*, vol. 49, no. 2, pp. 507–521, 2024. DOI: [10.1109/JOE.2023.3336462](https://doi.org/10.1109/JOE.2023.3336462).
- [J2] C. Peng and U. Mitra, "Planning versus learning: Fair space-time scheduling for unwired networks," *IEEE Transactions on Wireless Communications*, pp. 1–1, 2024. DOI: [10.1109/TWC.2024.3444693](https://doi.org/10.1109/TWC.2024.3444693).
- [J1] C. Peng, D. Zhang, and U. Mitra, "Asymmetric graph error control with low complexity in causal bandits," (under review), 2024.

### Conferences

- [C4] C. Peng and U. Mitra, "Re-planning vs. learning: Fair scheduling for underwater acoustic networks under model shift," in *2024 58th Asilomar Conference on Signals, Systems, and Computers*, IEEE, 2024.
- [C3] C. Peng, D. Zhang, and U. Mitra, "Graph identification and upper confidence evaluation for causal bandits with linear models," in *ICASSP 2024-2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE, 2024, pp. 7165–7169.
- [C2] C. Peng and U. Mitra, "Sampling-based linear approximate planning for underwater space-time fair scheduling," in *2023 57th Asilomar Conference on Signals, Systems, and Computers*, IEEE, 2023, pp. 253–259.
- [C1] C. Peng and U. Mitra, "Decentralized scheduling of a cognitive multihop underwater acoustic network with interference constraint," in *Proceedings of the 16th International Conference on Underwater Networks & Systems*, 2022, pp. 1–8.

## PROJECTS

University of Southern California, Advisor: [Prof. Urbashi Mitra](#)

Sept. 2020 - Present

- Sequential decision-making for cognitive medium access in underwater acoustic networks.
- Space-time fair scheduling of wireless networks via approximate planning.
- Low complexity causal graph identification and uncertainty evaluation for causal bandits.

## EXPERIENCES

### Graduate Research Assistant

University of Southern California

*Sept. 2020 - Present*

### Graduate Teaching Assistant

University of Southern California

*Sept. 2020 - Present*

- EE565 Information Theory and Compression (Graduate, 2023 Spring)

## ACADEMIC SERVICES

- Reviewer
  - IEEE Journal of Oceanic Engineering
- Graduate Student Member, IEEE.

## PROFESSIONAL SKILLS

- Computer languages and tools: Python (numpy, pytorch), C/C++, MATLAB; ns-3, GNURadio, USRP (UHD).
- Theory: machine learning and deep learning, causal inference, information theory, digital signal processing, wireless communications.

## SCHOLARSHIP AND HONORS

- National Scholarship - Ministry of Education of P.R.China *Nov. 2017*
- Student Paper Contest Finalist - Asilomar SSC Conference *Oct. 2024*