

Bo Liang

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🌐 <https://galaxywalk.github.io/>

Biography

I am a second-year year Ph.D. student at Center for Energy-efficient and Applications, Peking University, advised by Professor Chenren Xu. My research interest lies in human-computer interaction, mobile computing, and wireless sensing.

Education

- 2022-Present **Ph.D. in Computer Science**
Center for Energy-efficient Computing and Applications, Peking University
- 2017-2022 **BSc. Physics and Dual BSc. Computer Science**
School of Physics, Peking University

Research Publications

Conference Proceedings

- 1 B. Liang, P. Wang, R. Zhao, *et al.*, “Rf-chord: Towards deployable rfid localization system for logistic networks,” in *20th USENIX Symposium on Networked Systems Design and Implementation (NSDI 23)*, 2023, pp. 1783–1799.
- 2 P. Wang, B. Liang, R. Zhao, P. Zhang, X. Zhang, and C. Xu, “Poster: An rfid localization system for smart logistics,” in *Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems*, 2022, pp. 849–850. [DOI: 10.1145/3560905.3568078](https://doi.org/10.1145/3560905.3568078).
- 3 K. Li, R. Zhang, B. Liang, F. Guimbretière, and C. Zhang, “Eario: A low-power acoustic sensing earable for continuously tracking detailed facial movements,” 2, vol. 6, ACM New York, NY, USA, 2022, pp. 1–24. [DOI: 10.1145/3534621](https://doi.org/10.1145/3534621).
- 4 K. Xu, C. Gong, B. Liang, *et al.*, “Low-latency visible light backscatter networking with retromumimo,” in *Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems*, 2022, pp. 448–461. [DOI: 10.1145/3560905.3568507](https://doi.org/10.1145/3560905.3568507).
- 5 B. Liang, X. Liu, Y. Wan, S. Cheng, J. Liu, and C. Xu, “Poster: Empower smart agriculture with rfid reference infrastructure,” in *2023 20th Annual IEEE International Conference on Sensing, Communication, and Networking (SECON)*, IEEE, 2023, pp. 72–73.

Internship

- July 2023 - October 2023 **Human computer interaction (CHI) Research intern of Institute of Computing Technology, Chinese Academy**
Design hardware and software for mmwave radio systems for backscatter localization. (Mentor: Tengxiang Zhang)
- July 2021 - May 2023 **Software-hardware engineer of XG lab, Alibaba DAMO Academy**
Support the logistic chain (Cai Niao and fresh Hema) and access management of Alibaba by designing and implementing RFID-based inventory and localization system. Click the project page. (Mentor: Pengyu Zhang)

Internship (continued)

June 2020 - March 2021

📌 **Human computer interaction (CHI) research intern of Cornell University SciFi lab for**

Design and implement acoustic sensing devices, including Tx, Rx, modulation, demodulation, passive array process and machine learning based classifier. (Mentor: Prof.Cheng Zhang)

Skills

- Coding 📌 C, MATLAB, Python, \LaTeX
- Prototyping 📌 PCB design / Antenna design (elementary level), 3D printing/metal design, FPGA development, MCU development
- Physics 📌 Advanced optics, Electrodynamics, Quantum mechanics, Theoretical mechanics

Services

Reviewer

- MobiCom'24 📌 Artifact evaluation reviewer
- CHI'24 📌 External reviewer
- MobiCom'23 📌 Artifact evaluation reviewer
- MobiSys'23 📌 Artifact evaluation reviewer
- IMWUT'23 📌 External reviewer
- IMWUT'22 📌 External reviewer

Teaching Assistant

- Computer Network 📌 22 fall (honor track)

Honors

- 2023-2024, Top 3% 📌 PKU President Scholarship for Ph.D Student
- 2022, Top 10% 📌 PKU Outstanding Graduates
- 2020, Top 10% 📌 Weiming Physics Student Scholarship
- 2018 & 2020, Top 2% 📌 PKU Outstanding Student Leader
- 2017, Top 5% 📌 PKU Admission Scholarship