



## Personal Information

Name: Bowen Liu

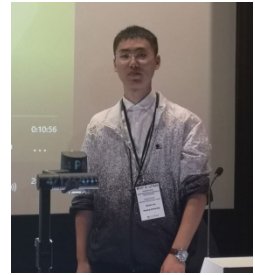
Gender: male

Contact: 15524839220

Date of birth: 1997.04

URL: albertbowen.github.io

E-mail: liubw@ust.hk



## Academic Position

Department of Computer Science and Engineering, Hong Kong University of Science and Technology

**Postdoctoral Researcher of iSING Lab**

**October 2024 - Now**



## Education Background

**Ph.D., Nanjing University** School of Computer Science and Technology

September 2019 - June 2024    Supervisor: Professor Wanchun dou

HPI Research Institute Outstanding Doctoral Scholarship (2 times)

First-class of Meritocracy Scholarship (2 times)

Outstanding Graduate Student of Nanjing University (2 times)

Nanjing University Outstanding Graduates

**BS.c., Northeastern University** School of Software

September 2015 - June 2019

National Scholarship

Liaoning Province Outstanding Graduates

Northeastern University Outstanding Student

Northeastern University First-class Scholarship



## Project Experience

- Served as the backbone contributor to the National Key R&D Program (2020YFB1707600), Industrial Internet business process intelligence basic theory research.

- Served as a project member in the National Natural Science Foundation of China Major Research Program Cultivation Project (92267104), research on the theory and method of Industrial Internet architecture reconfigurability for complex and diversified business characteristics.



## Service Experience

2025: ADMA PC; Reviewer of IEEE TMC, IEEE TDSC, IEEE TCE

2024: ADMA PC; Reviewer of IEEE TCSS, JSA

2023: ICA3PP Workshop PC

2022: HPCC PC, UIC PC

2021: PSTCI@CIKM PC



## Publication

1. **Bowen Liu**, Xinyang Huang, Qijing Li, Zhuobin Huang, Yijun Sun, Wenxue Li, Junxue Zhang, Ping Yin, and Kai Chen\*. CEIO: A Cache-Efficient Network I/O Architecture for NIC-CPU Data Paths. ACM SIGCOMM, 2025. CCF-A.

2. Wenxue Li, Xiangzhou Liu, Yunxuan Zhang, Zihao Wang, Wei Gu, Gaoxiong Zeng, Shoushou Ren, Xinyang Huang, Zhenghang Ren, **Bowen Liu**, Junxue Zhang, and Kai Chen\*. Revisiting RDMA Reliability for Lossy Fabrics. ACM SIGCOMM, 2025. CCF-A.

3. Jinbin Hu, Wenxue Li, Xiangzhou Liu, Junfeng Wang, **Bowen Liu**, Ping Yin, Jianxin Wang, Jiawei Huang, and Kai Chen\*. FLB: Fine-grained Load Balancing for Lossless Datacenter Networks. USENIX ATC, 2025. CCF-A.

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4. Zhenghang Ren, Yuxuan Li, Zilong Wang, Xinyang Huang, Wenxue Li, Kaiqiang Xu, Xudong Liao, Yijun Sun, **Bowen Liu**, Han Tian, Junxue Zhang, Mingfei Wang, Zhizhen Zhong, Guyue Liu, Ying Zhang, and Kai Chen\*. Enabling Efficient GPU Communication over Multiple NICs with FuseLink. USENIX OSDI, 2025. CCF-A.
  5. Xiaoyu Xia\*, Ziqi Wang, Ruoxi Sun, **Bowen Liu**, Ibrahim Khalil, and Minhui Xue. Edge Unlearning is Not" on Edge"! An Adaptive Exact Unlearning System on Resource-Constrained Devices. IEEE S&P, 2025. CCF-A.
  6. Siyuan Wu, Yongzhe Jia, **Bowen Liu**, Haolong Xiang, Xiaolong Xu, Wanchun Dou\*. PFedCS: A Personalized Federated Learning Method for Enhancing Collaboration among Similar Classifiers. AAAI, 2025. CCF-A.
  7. Qijing Li, Xinyang Huang, **Bowen Liu**, Pengbo Li, Junxue Zhang, and Kai Chen\*. Cache-Aware I/O Rate Control for RDMA. APNet, 2025. CCF-C.
  8. **Bowen Liu**, Hao Tian, Zhijie Shen, Yueyue Xu, Wanchun Dou\*. A Consortium Blockchain-Based Edge Task Offloading Method for Connected Autonomous Vehicles. ACM Transactions on Autonomous and Adaptive Systems, 2024. CCF-B.
  9. Xiaoyu Xia\*, Feifei Chen, Qiang He, Ruikun Luo, **Bowen Liu**, Caslon Chua, Rajkumar Buyya, and Yun Yang. EdgeShield: Enabling collaborative DDoS mitigation at the edge. IEEE TMC, 2024. CCF-A.
  10. Siyuan Wu, Guoming Zhang, Fei Dai, **Bowen Liu**, Wanchun Dou\*. An edge-assisted federated contrastive learning method with local intrinsic dimensionality in noisy label environment. Software: Practice and Experience, 2024. CCF-B.
  11. **Bowen Liu**, Boao Xiao, Xutong Jiang, Siyuan Cen, Xin He, Wanchun Dou\*. Adversarial Attacks on Large Language Model Based System and Mitigating Strategies: A Case Study on ChatGPT. Security and Communication Networks, 2023. CCF-C.
  12. 刘博文, 蒋旭桐, 窦万春\*. 工业互联网业务过程行为中的协同聚合与智能化提升方法. 计算机集成制造系统, 2023. CCF-C.
  13. Yue Shen, **Bowen Liu**, Xiaoyu Xia, Lianyong Qi, Xiaolong Xu, Wanchun Dou\*. A Game Theory-Based COVID-19 Close Contact Detecting Method with Edge Computing Collaboration. Computer Communications, 2023. CCF-C.
  14. Cheng Chen, Guoming Zhang, **Bowen Liu**, Xuyun Zhang, Xiaolong Qi, Wanchun Dou\*. Proactive Privacy Preserving Recommender System Through Differential Privacy. HPCC 2023, CCF-C.
  15. **Bowen Liu**, Wanchun Dou\*, Xiao kang Zhou, Xuyun Zhang, Lianyong Qi, Fei Dai, Chaochao Chen. An Intelligent Resource Scheduling Method With Edge Channel Deployment for BPM.

#### **UIC 2022 Outstanding Paper Award. CCF-C**

16. **Bowen Liu**, Xutong Jiang, Xin He, Lianyong Qi, Xiaolong Xu, Xiaokang Wang, Wanchun Dou\*. A deep learning-based edge caching optimization method for cost-driven planning process over IIoT. Journal of Parallel and Distributed Computing, 2022. CCF-B.
17. Wanchun Dou\*, **Bowen Liu**, Jirun Duan, Fei Dai, Lianyong Qi, Xiaolong Xu. SeeMe: An intelligent edge server selection method for location-aware business task computing over IIoT. Software: Practice and Experience, 2022. CCF-B.
18. Wanchun Dou\*, **Bowen Liu**, Chuangwei Lin, Xiaokang Wang, Xutong Jiang, Lianyong Qi. Architecture of virtual edge data center with intelligent metadata service of a geo-distributed file system. Journal of Systems Architecture, 2022. CCF-B.
19. 许悦玥, 刘博文, 田臣, 戴海鹏, 郑嘉琪, 陈贵海, 窦万春\*. 基于联盟链的可靠边缘计算任务卸载方法. 电子学报, 2022. CCF-A.
20. Yongzhe Jia, **Bowen Liu**, Wanchun Dou\*, Xiaolong Xu, Xiaokang Zhou, Lianyong Qi, Zheng Yan\*. CroApp: a CNN-based resource optimization approach in edge computing environment. IEEE Transactions on Industrial Informatics, 2022. CCF-C.

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21. Yue Shen, **Bowen Liu**, Fei Dai, Wanchun Dou. An Exact Potential Game-Based End-Edge-Cloud Collaborative Task Offloading Approach. UIC, 2022. CCF-C.
  22. Zhijie Shen, **Bowen Liu**, Xiaolong Xu, Lianyong Qi, Fei Dai, Wanchun Dou\*. IIoT Mobile Business Data Placement Strategy Based on Bayesian Optimization Algorithm. HPCC, 2022. CCF-C.
  23. Xuan Zhao, **Bowen Liu**, Xutong Jiang, Wenda Tang, Wanchun Dou\*. Smart decision for device selection in D2D-assisted multi-path video transmission network. Expert Systems, 2022. CCF-C.
  24. Xin He, Jiaqi Zheng, Haipeng Dai, **Bowen Liu**, Wanchun Dou, Guihai Chen\*, Fu Xiao. History-Assisted Online User Allocation in Mobile Edge Computing. ICWS 2022. CCF-B.
  25. Xin He\*, Jiaqi Zheng, Qiang He, Haipeng Dai, **Bowen Liu**, Wanchun Dou, Guihai Chen. Online computation offloading for deadline-aware tasks in edge computing. Wireless Networks, 2022. CCF-C.
  26. Xutong Jiang, Yuhu Sun, **Bowen Liu**, Wanchun Dou\*. Combinatorial double auction for resource allocation with differential privacy in edge computing. Computer Communications, 2022. CCF-C.
  27. Jiabang Liu, Xutong Jiang, Song Zhang, **Bowen Liu**, Wanchun Dou\*. CPP: A content-aware privacy protection method for location-based service. Expert Systems, 2022. CCF-C.
  28. **Bowen Liu**, Shunmei Meng, Xutong Jiang, Xiaolong Xu, Lianyong Qi, Wanchun Dou\*. A QoS-guaranteed online user data deployment method in edge cloud computing environment. Journal of Systems Architecture, 2021. CCF-B.
  29. **Bowen Liu**, Xiaolong Xu, Lianyong Qi, Qiang Ni, Wanchun Dou\*. Task scheduling with precedence and placement constraints for resource utilization improvement in multi-user MEC environment. Journal of Systems Architecture, 2021. CCF-B.
  30. Chuangwei Lin, **Bowen Liu**, Wei Zhou, Yueyue Xu, Xuyun Zhang, Wanchun Dou\*. A low-latency metadata service for geo-distributed file systems. WISE 2021. CCF-C.
  31. Xuan Zhao, Song Zhang, **Bowen Liu**, Xutong Jiang, Wanchun Dou\*. D2D-Based Multi-relay-Assisted Computation Offloading in Edge Computing Network. CollaborateCom 2021. CCF-C.
  32. Xin He, Jiaqi Zheng, Qiang He, Haipeng Dai, **Bowen Liu**, Wanchun Dou, Guihai Chen\*. Confect: Computation offloading for tasks with hard/soft deadlines in edge computing. ICWS 2021. CCF-B.
  33. Wanchun Dou\*, Wenda Tang, **Bowen Liu**, Xiaolong Xu, Qiang Ni. Blockchain-based mobility-aware offloading mechanism for fog computing services. Computer Communications, 2020. CCF-C