

Dongqi Cai (蔡栋琪)

PhD Student (Third Year)

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Research Interests

Edge Computing, Federated Learning, Natural Language Processing Efficiency, Speech Privacy.

Education

09/2021 – present

PhD in Computer Science and Technology, BUPT

- Advisor: Prof. Shangguang Wang, Prof. Mengwei Xu
- Remote Advisor: Prof. Felix Xiaozhu Lin

09/2017 – 07/2021

BS in Communication Engineering, BUPT

- Advisor: Prof. Lin Fan

Employment & Experience

07/2021 – 12/2021

Research Intern, Webank

- Mentor: Dr. Lixin Fan

Honors & Awards

- Excellent Ph.D. Students Foundation, BUPT, 2023
- Outstanding Graduate Student, State Key Laboratory of Networking and Switching Technology, 2022
- First-class academic scholarship, BUPT, 2022
- National-Level, Innovation and Entrepreneurship Projects for College Students, 2019

Conference Proceedings

(full list at <https://scholar.google.com/citations?user=dlimkboAAAAJ&hl=zh-CN>)

[1] “Federated Few-shot Learning for Mobile NLP”

Dongqi Cai, Shangguang Wang, Yaozong Wu, Felix Xiaozhu Lin, Mengwei Xu, in *Proc. ACM Int. Conf. Mobile Computing and Networking (MobiCom, CCF-A)*, 2023. Accepted to appear.

[2] “Efficient Federated Learning for Modern NLP”

- Dongqi Cai**, Yaozong Wu, Shangguang Wang, Felix Xiaozhu Lin, Mengwei Xu, in *Proc. ACM Int. Conf. Mobile Computing and Networking (MobiCom, CCF-A)*, 2023. Accepted to appear.
- [3] “Towards Practical Few-shot Federated NLP”
- Dongqi Cai**, Yaozong Wu, Haitao Yuan, Shangguang Wang, Felix Xiaozhu Lin, Mengwei Xu, in *Proceedings of the 3rd Workshop on Machine Learning and Systems (EuroMLSys)*, co-located with *European Conference on Computer Systems (EuroSys, CCF-A)*, 2023.
- [4] “Towards ubiquitous learning: A first measurement of on-device training performance”
- Dongqi Cai**, Qipeng Wang, Yuanqiang Liu, Yunxin Liu, Shangguang Wang, Mengwei Xu, in *Proceedings of the 5th International Workshop on Embedded and Mobile Deep Learning (EMDL)*, co-located with *ACM International Conference on Mobile Systems, Applications, and Services (MobiSys, CCF-B)*, 2021.
- [5] “Mitigating App Collusion using Machine Learning”
- Xuefei Duan, Hua Lu, Jinliang Yuan, Qiyang Zhang, **Dongqi Cai**, in *IEEE 7th International Conference on Big Data Intelligence and Computing (DataCom)*, 2021.

Journal Publications

(full list at <https://scholar.google.com/citations?user=dlimkboAAAAJ&hl=zh-CN>)

- [1] “Accelerating Vertical Federated Learning”
- Dongqi Cai**, Tao Fan, Yan Kang, Lixin Fan, Mengwei XU, Shangguang Wang, Qiang Yang, early access in *IEEE Transactions on Big Data (IEEE TBD)*, 2022.
- [2] “Implementation of an E-payment security evaluation system based on quantum blind computing”
- Dongqi Cai**, Xi Chen, Yuhong Han, Xin Yi, Jinping Jia, Cong Cao, Ling Fan, in *International Journal of Theoretical Physics (IJTP)*, 2020.

Academic Services

- **TPC Member**
NCSC-edge'22
- **Reviewer**
IoTJ, SAGC'22, ICASSP'24.
- **External Reviewer**
EIS'21, ICWS'23