ZHIYUAN WU

CONTACT INFORMATION

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EDUCATION

2025.09-Present Ph.D in Department of Computer Science and Technology, Tsinghua University

2022.09-2025.07 MSc in Institute of Computing Technology, Chinese Academy of Sciences

RESEARCH INTERESTS

Intelligent Network, Distributed Systems, Edge-Cloud Collaboration

SELECTED PUBLICATIONS

Zhiyuan Wu, Sheng Sun, Yuwei Wang, Min Liu, Quyang Pan, Xuefeng Jiang, and Bo Gao. FedICT: Federated Multi-task Distillation for Multi-access Edge Computing. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*. 2024 (**ESI Highly Cited Paper**)

Zhiyuan Wu, Sheng Sun, Yuwei Wang, Min Liu, Bo Gao, Quyang Pan, Tianliu He, Xuefeng Jiang. Agglomerative Federated Learning: Empowering Larger Model Training via End-Edge-Cloud Collaboration. *IEEE International Conference on Computer Communications (INFOCOM)*. 2024 (**IEEE Xplore Popular Article, Rank 1/256 in INFOCOM 2024, Rank 3/1000+ in INFOCOM Proceedings**)

Zhiyuan Wu, Sheng Sun, Yuwei Wang, Min Liu, Ke Xu, Wen Wang, Xuefeng Jiang, Bo Gao, and Jinda Lu. FedCache: A Knowledge Cache-driven Federated Learning Architecture for Personalized Edge Intelligence. *IEEE Transactions on Mobile Computing (TMC)*. 2024 (**IEEE Xplore Popular Article**)

Zhiyuan Wu, Sheng Sun, Yuwei Wang, Min Liu, Quyang Pan, Junbo Zhang, Zeju Li, and Qingxiang Liu. Exploring the Distributed Knowledge Congruence in Proxy-data-free

Federated Distillation. *ACM Transactions on Intelligent Systems and Technology (TIST)*. 2024

Zhiyuan Wu, Sheng Sun, Yuwei Wang*, Min Liu, Ke Xu, Quyang Pan, Bo Gao, and Tian Wen. Beyond Model Scale Limits: End-Edge-Cloud Federated Learning with Self-Rectified Knowledge Agglomeration. Under Review in *IEEE/ACM Transactions on Networking (ToN).* 2025

Zhiyuan Wu, Sheng Sun, Yuwei Wang*, Bo Gao, Jinda Lu, Zheming Yang, Tian Wen. Under Review in *IEEE Transactions on Mobile Computing (TMC)*. 2025

Sheng Sun, Zengqi Zhang, Quyang Pan, Min Liu*, Yuwei Wang, Tianliu He, Yali Chen, and **Zhiyuan Wu**. Staleness-Controlled Asynchronous Federated Learning: Accuracy and Efficiency Tradeoff. *IEEE Transactions on Mobile Computing (TMC)*, 2024

HONORS AND AWARDS

President Award, Chinese Academy of Sciences, 2025

President Special Prize, Institute of Computing Technology, Chinese Academy of Sciences, 2024

National Scholarship, 2024

National Scholarship, 2023

Pacemaker to Merit Students, 2024

Outstanding Graduate of Beijing, 2025

Efunda Fintech Freshman Scholarship, 2023

TECHNICAL REVIEWER

IEEE Transactions on Mobile Computing (TMC)

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

International Conference on Machine Learning (ICML)

Advances in Neural Information Processing Systems (NeurIPS)

International Conference on Learning Representations (ICLR)

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