

Haodi Wang

Research Assistant Professor

Department of Computer Science, City University of Hong Kong

✉ haodi.wang@cityu.edu.hk

🌐 [lirawang.github.io](https://github.com/lirawang)

🎓 [Google Scholar](#)

📍 Kowloon, Hong Kong SAR



RESEARCH INTERESTS

Zero-Knowledge Proofs and Verifiable Computation • Privacy-Preserving Machine Learning • Trustworthy and Secure AI.

ACADEMIC APPOINTMENTS

City University of Hong Kong — *Research Assistant Professor* 08/2025 – Present

- Department of Computer Science. PI: Prof. Xiaohua Jia.

Laboratory for AI-Powered Financial Technologies (AIFT) 06/2024 – 08/2025

- *Postdoctoral Research Fellow*. CityU joint laboratory, Hong Kong Science Park. PI: Prof. Xiaohua Jia.

EDUCATION

Beijing Normal University — Ph.D., Computer Science 09/2018 – 06/2024

- GPA: 3.96/4.0 • Rank 1/30.

Beijing Normal University — B.Sc., Computer Science 09/2014 – 06/2018

- GPA: 3.85/5.0 • Rank 6/54.

PUBLICATIONS

Bold = author • * equal contribution • † corresponding author.

Journal tag [**IF** • **Q** • **top %**] = Clarivate JCR 2024 Impact Factor, quartile and category percentile. Conference tag [**CityU rating** • **CCF** • **CORE** • **acceptance rate**], fields shown where applicable.

Refereed Journal Articles

- [J1] T. Jiang, **H. Wang**[†], R. Bie, C. Yuan. Accelerating Zero-Shot NAS with Feature Map-Based Proxy and Operation Scoring Function. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2025. [**IF 18.6** • **Q1** • **top 1%**]
- [J2] **H. Wang**, R. Bie, T. Hoang. An Efficient and Zero-Knowledge Classical Machine Learning Inference Pipeline. *IEEE Transactions on Dependable and Secure Computing (TDSC)*, vol. 22, no. 2, pp. 1347–1364, 2025. [**IF 7.5** • **Q1** • **top 8%**]
- [J3] Y. Guo, Y. Xi, **H. Wang**, M. Wang, C. Wang, X. Jia. FedEDB: Building a Federated and Encrypted Data Store via Consortium Blockchains. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, vol. 36, no. 11, pp. 6210–6224, 2024. [**IF 10.4** • **Q1** • **top 2%**]
- [J4] **H. Wang**, Y. Guo, R. Bie, X. Jia. Verifiable Arbitrary Queries with Zero-Knowledge Confidentiality in Decentralized Storage. *IEEE Transactions on Information Forensics and Security (TIFS)*, 2023. [**IF 8.0** • **Q1** • **top 7%**]
- [J5] C. Li, **H. Wang**, Y. Zhao, Y. Xi, E. Xu, S. Wang. Enabling High-Quality Machine Learning Model Trading on Blockchain-Based Marketplace. *Mathematics*, 2023. [**IF 2.3** • **Q1** • **top 6%**]

- [J6] M. He, **H. Wang**, Y. Sun, R. Bie, T. Lan, Q. Song, X. Zeng, M. Pustišek, Z. Qiu. T2L: A Traceable and Trustable Consortium Blockchain for Logistics. *Digital Communications and Networks*, 2022. [IF 7.5 • Q1 • top 19%]
- [J7] X. Zhu, **H. Wang**, Z. Zhang, X. Wu, J. Guo, H. Wu. A Deep Learning Network Based End-to-End Image Composition. *Signal Processing: Image Communication*, 2022. [IF 2.7 • Q3]
- [J8] L. Jiao, H. Wu, **H. Wang**, R. Bie. Multi-Scale Semantic Image Inpainting with Residual Learning and GAN. *Neurocomputing*, 2019. [IF 6.5 • Q1]

Refereed Conference Proceedings

- [C1] J. Yang*, **H. Wang***, T. Jiang, M. Zhang, R. Bie. AutoMixer: Automated Multi-Scale Mixing for Time Series Forecasting Based on Neural Architecture Search. *International Joint Conference on Neural Networks (IJCNN)*, 2026. [CCF C]
- [C2] **H. Wang**, D. Zhang, T. Jiang, D. Wang, F. Guo, J. Wang, Y. Guo. zkNAS: Secure and Efficient Outsourced Neural Architecture Search with Zero-Cost Proxies. *International Conference on Database Systems for Advanced Applications (DASFAA)*, 2026. [CCF B]
- [C3] A. Riasi, **H. Wang**, R. Behnia, V. Vo, T. Hoang. Zero-Knowledge AI Inference with High Precision. *ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2025. [CityU A+ • CCF A • CORE A* • ~14%]
- [C4] Z. Tan, **H. Wang**, L. Jiao, R. Bie. FedART: Enhancing Replay in Federated Incremental Learning. *ACM International Conference on Multimedia in Asia (MMAsia)*, 2025. [CCF C]
- [C5] Z. Cheng, **H. Wang**, R. Bie. Mega-CE: A Multimodal Heterogeneous Aggregation Framework for End-Edge-Cloud Computing. *Asian Conference on Machine Learning (ACML)*, 2025. [CCF C • 23.1%]
- [C6] **H. Wang**, T. Jiang, Y. Guo, F. Guo, R. Bie, X. Jia. Label Noise Correction for Federated Learning: A Secure, Efficient and Reliable Realization. *IEEE International Conference on Data Engineering (ICDE)*, 2024. [CityU A • CCF A • CORE A* • 25.4%]
- [C7] T. Jiang, **H. Wang**, R. Bie, L. Jiao. New Indicators and Optimizations for Zero-Shot NAS Based on Feature Maps. *International Conference on Knowledge Science, Engineering and Management (KSEM)*, 2024. [CCF C • 32.3%]
- [C8] T. Jiang*, **H. Wang***, R. Bie. MeCo: Zero-Shot NAS with One Data and Single Forward Pass via Minimum Eigenvalue of Correlation. *Advances in Neural Information Processing Systems (NeurIPS)*, 2023. [CityU A • CCF A • CORE A* • Spotlight (~3.0%)]
- [C9] **H. Wang**, T. Hoang. ezDPS: An Efficient and Zero-Knowledge Machine Learning Inference Pipeline. *Proceedings on Privacy Enhancing Technologies (PoPETs / PETS)*, 2023. [CORE A • 22%]
- [C10] Y. Li, C. Ye, Y. Hu, I. Morpheus, Y. Guo, C. Zhang, Y. Zhang, Z. Sun, Y. Lu, **H. Wang**. ZKCPlus: Optimized Fair-Exchange Protocol Supporting Practical and Flexible Data Exchange. *ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2021. [CityU A+ • CCF A • CORE A* • 22.3%]
- [C11] **H. Wang**, D. An, X. Zhu, X. Yang, R. Bie. TIMS: A Secure Testing-Machine Information Management System. *Procedia Computer Science*, 2021.
- [C12] **H. Wang**, L. Jiao, R. Bie, H. Wu. Semantic Inpainting with Multi-Dimensional Adversarial Network and Wasserstein Distance. *Chinese Conference on Pattern Recognition and Computer Vision (PRCV)*, 2020. [CCF C • 39.3%]
- [C13] **H. Wang**, L. Jiao, H. Wu, R. Bie. New Inpainting Algorithm Based on Simplified Context Encoders and Multi-Scale Adversarial Network. *Procedia Computer Science*, 2019.
- [C14] **H. Wang**, K. Liu, Z. Qi, J. Guo. The Establishment and Optimization of Airport Security Check Process Model. *Youth Academic Annual Conference of Chinese Association of Automation (YAC)*, 2017.

Preprints & Working Papers

- [P1] **H. Wang**, T. Jiang, X. Jia. Ownership-Enhanced and Privacy-Preserving Data Sharing for Deep Learn-

ing Model Training. *IEEE Transactions on Information Forensics and Security (TIFS)*, Major Revision.

- [P2] **H. Wang**, T. Jiang, Z. Chen, X. Jia. DataAuth: Data Authorization to and only to the Training of Authorized Models. *IEEE Symposium on Security and Privacy*, Under Review.
- [P3] **H. Wang**, T. Jiang, Y. Guo, C. Cai, C. Wang, X. Jia. Enhancing Frequency-Guided DPSGD: Gradient-Preserving Noise Reduction for Superior Utility-Privacy Trade-offs. *IEEE Transactions on Dependable and Secure Computing (TDSC)*, Under Review.
- [P4] R. Bie*, **H. Wang***, M. Zhang, T. Jiang, D. Wang, Y. Guo. pFedSD: Separating Feature Information for Personalized Federated Learning via Soft Decoupling. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Under Review.
- [P5] T. Jiang, **H. Wang**, C. Yuan. DiffoRA: Enabling Parameter-Efficient LLM Fine-Tuning via Differential Low-Rank Matrix Adaptation. *arXiv preprint*, 2025.

RESEARCH SERVICES

- **Track Program Chair**, International Conference on Mobility, Sensing and Networking (MSN), 2024.
- **Reviewer**: NeurIPS • ACML • TC • TDSC • TIFS.

TEACHING

CS2115 Computer Organization — <i>Lectures & Tutorials</i> , City University of Hong Kong	2025/26 Sem. A
CS3103 Operating Systems — <i>Lectures & Tutorials</i> , City University of Hong Kong	2025/26 Sem. B

HONORS & AWARDS

- First-Class Academic Scholarship for Graduate Students, Beijing Normal University (2019, 2020, 2021).
- First-Class Scholarship for New Graduate Students, Beijing Normal University (2018).
- Outstanding Student Cadre, Beijing Normal University (2019).
- Merit Student & Outstanding Member, Beijing Normal University.