

Hongjie Wu

PH.D. CANDIDATE · SICHUAN UNIVERSITY

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"Rome was not built in a day."

Summary

I am a second-year PhD student at the Data Intelligence and Computing Art Lab College of Computer Science, Sichuan University, China, and the Engineering Research Center of Machine Learning and Industry Intelligence, Education Ministry of China, under the guidance of Prof. Jiancheng Lv.

My research interests include generative models (more focus on diffusion models), computer vision, efficient AI, multi-modal learning, and broad deep learning topics in general. I am a highly diligent and self-motivated research student.

Education

Sichuan University

PH.D. CANDIDATE IN SOFTWARE ENGINEERING

Chengdu, China

Sept. 2022 - Current

- **Supervisor:** Jiancheng Lv
- **Honor:** Top 10 Student Collectives, Ph.D. Innovation Scholarship, NPCI Scholarship, The Star of Graduate Students, Outstanding Ph.D. Student of Sichuan University

Sichuan University

MASTER IN COMPUTER TECHNOLOGY

Chengdu, China

Sept. 2019 - Jun. 2022

- **Supervisor:** Jiancheng Lv
- **Honor:** Outstanding Graduates of Sichuan Province, The Academic Star of Graduate Students, First-class University Scholarship, Outstanding Graduates of Sichuan University

Sichuan University

BACHELOR IN COMPUTER SCIENCE AND TECHNOLOGY

Chengdu, China

Sept. 2014 - Jun. 2018

- **Supervisor:** Lei Zhang

Publications/ Manuscripts

RESEARCH AREA I: DIFFUSION MODEL

Diffusion Posterior Proximal Sampling for Image Restoration

Hongjie Wu, Linchao He, Mingqin Zhang, Dongdong Chen, Kunming Luo, Mengting Luo, Ji-Zhe Zhou, Hu Chen, Jiancheng Lv

Proceedings of the 32st ACM International Conference on Multimedia (ACM MM) Oral presentation, 2024

Fast and Stable Diffusion Inverse Solver with History Gradient Update

Linchao He, Hongyu Yan, Mengting Luo, **Hongjie Wu**, Kunming Luo, Wang Wang, Wenchao Du, Hu Chen, Hongyu Yang, Yi Zhang, Jiancheng Lv

arXiv preprint arXiv:2307.12070. 2023

RESEARCH AREA II: MULTI-VIEW LEARNING

Multi-view subspace clustering on topological manifold

Shudong Huang*, **Hongjie Wu*** (co-first), Yazhou Ren, Ivor Tsang, Zenglin Xu, Wentao Feng, Jiancheng Lv

Advances in Neural Information Processing Systems (NeurIPS) Spotlight pp. 25883–25894. 2022

Pure graph-guided multi-view subspace clustering

Hongjie Wu, Shudong Huang, Chenwei Tang, Yancheng Zhang, Jiancheng Lv

Pattern Recognition p. 109187. Elsevier, 2023

Metric multi-view graph clustering

Yuze Tan, Yixi Liu, **Hongjie Wu**, Jiancheng Lv, Shudong Huang

Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2023

Preserving Local and Global Information: An Effective Metric-based Subspace Clustering

Yixi Liu, Yuze Tan, **Hongjie Wu**, Shudong Huang, Yazhou Ren, Jiancheng Lv

Proceedings of the 31st ACM International Conference on Multimedia (ACM MM), 2023

Euclidean Distance Is Not Your Swiss Army Knife

Yuze Tan, Yixi Liu, **Hongjie Wu**, Shudong Huang, Zenglin Xu, Ivor Tsang, Jiancheng Lv

IEEE Transactions on Knowledge and Data Engineering (TKDE). 2024

Multi-view graph clustering by adaptive manifold learning
Peng Zhao*, **Hongjie Wu*** (co-first), Shudong Huang
Mathematics p. 1821. MDPI, 2022

RESEARCH AREA III: DEEP LEARNING APPLICATIONS

Automatic cataract detection with multi-task learning

Hongjie Wu, Jiancheng Lv, Jian Wang

International Joint Conference on Neural Networks (IJCNN), 2021

ST-CA YOLOv5: Improved YOLOv5 based on Swin Transformer and coordinate attention for surface defect detection

Wen Yang, **Hongjie Wu**, Chenwei Tang, Jiancheng Lv

International Joint Conference on Neural Networks (IJCNN), 2023

Self-supervised Domain Adaptation with Significance-Oriented Masking for Pelvic Organ Prolapse detection

Shichang Li, **Hongjie Wu**, Chenwei Tang, Dongdong Chen, Yueyue Chen, Ling Mei, Fan Yang, Jiancheng Lv

Pattern Recognition Letters. 2024

Honors & Awards

2024	Top 10 Student Collectives (team leader) , granted by Sichuan University	China
2023	Ph.D. Innovation Scholarship , granted by Ministry of Education	China
2023	NPIC Scholarship (first-class) , granted by NPIC	China
2023	Outstanding Ph.D. Student of Sichuan University , granted by Sichuan University	China
2022	The Academic Star of Graduate Students , granted by Sichuan University	China
2022	Outstanding Graduate Students of Sichuan Province , granted by Sichuan Province	China
2021	Outstanding Graduates of University , granted by Sichuan University	China
2021	First-class University Scholarship , granted by Ministry of Education	China

Interests

Running Running provides me with a profound sense of mental and physical well-being and contentment.

Reading I love reading books, for they ignite my imagination and broaden my knowledge and understanding of the world.

Watching Movies I like to watch movies in my free time, which have been a captivating source of entertainment and fascination for me.

Cooking I am good at cooking Sichuan cuisine (perhaps), and preparing delicious meals gives me a great sense of achievement.