

Hanzhou Wu

CURRICULUM VITAE

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Education

1. PhD, Southwest Jiaotong University, Chengdu, China, 2011 – 2017
2. BS, Southwest Jiaotong University, Chengdu, China, 2007 – 2011

Occupation

1. Associate Professor, Shanghai University, Shanghai, China, 2021 – present
2. Assistant Professor, Shanghai University, Shanghai, China, 2019 – 2021
3. Research Scientist, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 2017 – 2019
4. Visiting Scholar, New Jersey Institute of Technology, New Jersey, United States, 2014 – 2016

Research

1. Information Hiding – Steganography, Steganalysis, Digital Watermarking
2. Information Forensics
3. Multimedia Security
4. Artificial Intelligence Security
5. Multimedia Signal Processing
6. Natural Language Processing – Large Language Models

Editorial Board

1. Associate Editor, *IEEE Signal Processing Letters*, 2025 – present
2. *Scientific Reports*, Springer, 2025 – present

Funding

1. PI, Natural Science Foundation of Guizhou Province, 2024
2. PI, Natural Science Foundation of Shanghai, 2024
3. Co-PI, Xizang Autonomous Region Central Guided Local Science and Technology Development Fund Project, 2024
4. Co-PI, Natural Science Foundation of China, 2023
5. PI, CCF-Tencent Rhino-Bird Young Faculty Open Research Fund, 2022
6. PI, Natural Science Foundation of China, 2020
7. PI, Shanghai “Chen Guang” Program, 2020
8. PI, China Scholarship Council, 2014

Services and Activities

1. Organization Chair, *IEEE International Workshop on Information Forensics and Security*, 2022.
2. Keynote Speech, *International Conference on Advances in Multimedia*, 2022.
3. Steering Committee, *International Conference on Advances in Multimedia*, 2022 – 2026.
4. Technical Committee, *APSIPA Multimedia Security and Forensics*, 2023 – present
5. Special Section Chair, *APSIPA Annual Summit and Conference*, 2024.
6. Special Section Chair, “Multimedia and AI Security”, *International Conference on Communications and Broadband Networking*, 2025.

Honors and Awards

1. Bronze Medal (as a contestant), *35th ACM-ICPC Asia Regional Programming Contest (Tianjin Site)*, 2010.
2. Bronze Medal (as a contestant), *35th ACM-ICPC Asia Regional Programming Contest (Hangzhou Site)*, 2010.
3. Silver Medal (as a contestant), “Google Cup” *ACM-ICPC Fudan Invitational Programming Contest (Shanghai Site)*, 2011.
4. Silver Medal (as a contestant), *36th ACM-ICPC Beijing Invitational Programming Contest (Beijing Site)*, 2011.
5. Silver Medal (as a contestant), *36th ACM-ICPC Asia Regional Programming Contest (Chengdu Site)*, 2011.
6. Outstanding Paper Award (1st author), *China Information Hiding Workshop*, 2019.
7. Best Presentation Award (1st author), *China Media Forensics and Security Workshop*, 2021.
8. Outstanding Paper Award (co-author), *China Media Forensics and Security Workshop*, 2023.

Book Chapters

1. H. Wu. Unsupervised steganographer identification via clustering and outlier detection. *Digital Media Steganography*, Elsevier, 2020.
2. H. Wu. Recent advances in reversible watermarking in an encrypted domain. *Advanced Security Solutions for Multimedia*, IOP Science, 2021.
3. H. Wu. Graph models in information hiding. *Recent Applications in Graph Theory*, IntechOpen, 2021.
4. H. Wu, T. Yang, X. Zheng, Y. Fang. Linguistic steganography and linguistic steganalysis. *Adversarial Multimedia Forensics*, Springer, 2024.

Journal Papers

1. G. Xu, H. Wu, Y. Shi. Structural design of convolutional neural networks for steganalysis. *IEEE Signal Processing Letters*, vol. 23, no. 5, pp. 708-712, 2016.

2. H. Wu, Y. Shi, H. Wang, L. Zhou. Separable reversible data hiding for encrypted palette images with color partitioning and flipping verification. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 27, no. 8, pp. 1620-1631, 2017.
3. F. Ding, H. Wu, G. Zhu, Y. Shi. METEOR: Measurable energy map toward the estimation of resampling rate via a convolutional neural network. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 30, no. 12, pp. 4715-4727, 2020.
4. Y. Chen, H. Wang, H. Wu, Z. Wu, T. Li, A. Malik. Adaptive video data hiding through cost assignment and STCs. *IEEE Transactions on Dependable and Secure Computing*, vol. 18, no. 3, pp. 1320-1335, 2021.
5. H. Wu, B. Yi, F. Ding, G. Feng, X. Zhang. Linguistic steganalysis with graph neural networks. *IEEE Signal Processing Letters*, vol. 28, pp. 558-562, 2021.
6. H. Wu, G. Liu, Y. Yao, X. Zhang. Watermarking neural networks with watermarked images. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 31, no. 7, pp. 2591-2601, 2021.
7. Z. Wang, G. Feng, H. Wu, X. Zhang. Data hiding in neural networks for multiple receivers. *IEEE Computational Intelligence Magazine*, vol. 16, no. 4, pp. 70-84, 2021.
8. Y. Qin, H. Wu, X. Zhang, G. Feng. Semi-supervised structured subspace learning for multi-view clustering. *IEEE Transactions on Image Processing*, vol. 31, pp. 1-14, 2022.
9. B. Yi, H. Wu, G. Feng, X. Zhang. ALiSa: Acrostic linguistic steganography based on BERT and Gibbs sampling. *IEEE Signal Processing Letters*, vol. 29, pp. 687-691, 2022.
10. L. Zhou, C. Zhang, Q. Zeng, X. Liu, H. Wu. Optimal low-hit-zone frequency-hopping sequence sets with wide-gap for FHMA systems under follower jamming. *IEEE Communications Letters*, vol. 26, no. 5, pp. 969-973, 2022.
11. Y. Qin, H. Wu, J. Zhao, G. Feng. Enforced block diagonal subspace clustering with closed form solution. *Pattern Recognition*, vol. 130, p. 108791, 2022.
12. H. Wu, C. Li, G. Liu, X. Zhang. Hiding data hiding. *Pattern Recognition Letters*, vol. 165, pp. 122-127, 2023.
13. L. Xiong, T. Peng, F. Li, S. Zeng, H. Wu. Privacy-preserving authentication scheme with revocability for multi-WSN in industrial IoT. *IEEE Systems Journal*, vol. 17, no. 1, pp. 38-49, 2023.
14. T. Qiao, Y. Ma, N. Zheng, H. Wu, Y. Chen, M. Xu, X. Luo. A novel model watermarking for protecting generative adversarial network. *Computers & Security*, vol. 127, p. 103102, 2023.
15. J. Wang, D. Wu, L. Li, J. Zhao, H. Wu, Y. Tang. Robust periodic blind watermarking based on sub-block mapping and block encryption. *Expert Systems with Applications*, vol. 224, p. 119981, 2023.
16. S. Chen, A. Malik, X. Zhang, G. Feng, H. Wu. A fast method for robust video watermarking based on Zernike moments. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 33, no. 12, pp. 7342-7353, 2023.

17. T. Yang, H. Wu, B. Yi, G. Feng, X. Zhang. Semantic-preserving linguistic steganography by pivot translation and semantic-aware bins coding. *IEEE Transactions on Dependable and Secure Computing*, vol. 21, no. 1, pp. 139-152, 2024.
18. Y. Liu, H. Wu, X. Zhang. Robust and imperceptible black-box DNN watermarking based on Fourier perturbation analysis and frequency sensitivity clustering. *IEEE Transactions on Dependable and Secure Computing*, vol. 21, no. 6, pp. 5766-5780, 2024.
19. Y. Qin, N. Pu, H. Wu. Elastic multi-view subspace clustering with pairwise and high-order correlations. *IEEE Transactions on Knowledge and Data Engineering*, vol. 36, no. 2, pp. 556-568, 2024.
20. Y. Qin, N. Pu, H. Wu. EDMC: Efficient multi-view clustering via cluster and instance space learning. *IEEE Transactions on Multimedia*, vol. 26, pp. 5273-5283, 2024.
21. Y. Qin, Z. Tang, H. Wu, G. Feng. Flexible tensor learning for multi-view clustering with Markov chain. *IEEE Transactions on Knowledge and Data Engineering*, vol. 36, no. 4, pp. 1552-1565, 2024.
22. X. Zhao, H. Wu, X. Zhang. Effective backdoor attack on graph neural networks in spectral domain. *IEEE Internet of Things Journal*, vol. 11, no. 7, pp. 12102-12114, 2024.
23. Y. Liu, L. Zhang, H. Wu, Z. Wang, X. Zhang. Reducing high-frequency artifacts for generative model watermarking via wavelet transform. *IEEE Internet of Things Journal*, vol. 11, no. 10, pp. 18503-18515, 2024.
24. Y. Liu, C. Li, Z. Wang, H. Wu, X. Zhang. Transferable adversarial attack based on sensitive perturbation analysis in frequency domain. *Information Sciences*, vol. 678, p. 120971, 2024.
25. D. Wu, J. Wang, J. Zhao, L. Li, Z. Wang, H. Wu. Adaptive robust watermarking for resisting multiple distortions in real scenes. *IEEE Internet of Things Journal*, vol. 11, no. 10, pp. 33229-33246, 2024.
26. L. Lin, D. Wu, J. Wang, Y. Chen, X. Zhang, H. Wu. Automatic, robust and blind video watermarking resisting camera recording. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 34, no. 12, pp. 13413-13426, 2024.
27. J. Wang, J. Zhao, L. Li, Z. Wang, H. Wu, D. Wu. Robust blind video watermarking based on ring tensor and BCH coding. *IEEE Internet of Things Journal*, vol. 11, no. 24, pp. 40743-40756, 2024.
28. Y. Qin, N. Pu, H. Wu, N. Sebe. Discriminative anchor learning for efficient multi-view clustering. *IEEE Transactions on Multimedia*, vol. 27, pp. 1386-1396, 2025.
29. Y. Qin, N. Pu, H. Wu, N. Sebe. Margin-aware noise-robust contrastive learning for partially view-aligned problem. *ACM Transactions on Knowledge Discovery from Data*, vol. 19, no. 1, pp. 1-20, 2025.
30. L. Xiong, J. Wang, L. Yu, N. Xiong, H. Wu. An efficient privacy-preserving access control scheme for cloud computing services. *IEEE Transactions on Consumer Electronics*, vol. 71, no. 2, pp. 6642-6658, 2025.

Conference Papers

1. H. Wu, H. Wang, Y. Shi. PPE-based reversible data hiding. *ACM Workshop on Information Hiding and Multimedia Security*, pp. 187-188, 2016.
2. G. Xu, H. Wu, Y. Shi. Ensemble of CNNs for steganalysis: an empirical study. *ACM Workshop on Information Hiding and Multimedia Security*, pp. 103-107, 2016.
3. H. Wu, H. Wang, Y. Shi. Dynamic content selection-and-prediction framework applied to reversible data hiding. *IEEE International Workshop on Information Forensics and Security*, pp. 1-6, 2016.
4. H. Wu, W. Wang, J. Dong, H. Wang. Ensemble reversible data hiding. *IEEE International Conference on Pattern Recognition*, pp. 2676-2681, 2018.
5. H. Wu, W. Wang, J. Dong, H. Wang. New graph-theoretic approach to social steganography. *IS&T Electronic Imaging, Media Watermarking, Security and Forensics*, pp. 539-1-539-7, 2019.
6. H. Wu, X. Zhang. Reducing invertible embedding distortion using graph matching model. *IS&T Electronic Imaging, Media Watermarking, Security and Forensics*, pp. 21-1-21-10, 2020.
7. J. Wang, H. Wu, X. Zhang, Y. Yao. Watermarking in deep neural networks via error back-propagation. *IS&T Electronic Imaging, Media Watermarking, Security and Forensics*, pp. 22-1-22-9, 2020.
8. H. Kang, H. Wu, X. Zhang. Generative text steganography based on LSTM network and attention mechanism with keywords. *IS&T Electronic Imaging, Media Watermarking, Security and Forensics*, pp. 291-1-291-8, 2020.
9. H. Wu. Patch-level selection and breadth-first prediction strategy for reversible data hiding. *IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 2837-2841, 2020.
10. X. Zhao, Y. Yao, H. Wu, X. Zhang. Structural watermarking to deep neural networks via network channel pruning. *IEEE International Workshop on Information Forensics and Security*, pp. 1-6, 2021.
11. B. Yi, H. Wu, G. Feng, X. Zhang. Exploiting language model for efficient linguistic steganalysis. *IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 3074-3078, 2022.
12. H. Wu. Prompting steganography: a new paradigm. *IS&T Electronic Imaging, Media Watermarking, Security, and Forensics*, pp. 338-1-338-11, 2024.
13. L. Zhang, Y. Liu, X. Zhang, H. Wu. Suppressing high-frequency artifacts for generative model watermarking by anti-aliasing. *ACM Workshop on Information Hiding and Multimedia Security*, pp. 223-234, 2024.
14. C. He, D. Wu, X. Zhang, H. Wu. Watermarking text documents with watermarked fonts. *ACM Workshop on Information Hiding and Multimedia Security*, pp. 187-197, 2024.
15. X. Zhao, H. Wu, X. Zhang. Transferable watermarking to self-supervised pre-trained graph encoders by trigger embeddings. *IEEE International Workshop on Information Forensics and Security*, pp. 1-6, 2024.

Full Paper List

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