

Tianyi (Terry) Wang (He/Him/His)

Deepfake Detection • Multimedia Forensics • Computer Vision

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EXPERIENCES

Nanyang Technological University
Postdoctoral Researcher

Singapore
2023 – Present

EDUCATION

The University of Hong Kong
Ph.D. in Computer Science

Hong Kong
2018 – 2023

University of Washington
B.S. in Computer Science
B.S. in Applied and Computational Mathematical Sciences

Seattle, WA, USA
2014 – 2018
2014 – 2018

SELECTED PUBLICATIONS

- **Tianyi Wang**, Mengxiao Huang, Harry Cheng, Xiao Zhang, Zhiqi Shen. LampMark: Proactive Deepfake Detection via Training-Free Landmark Perceptual Watermarks. *The 32nd ACM International Conference on Multimedia (ACM MM)*, 2024.
- **Tianyi Wang**, Zian Li, Ruixia Liu, Yinglong Wang, Liqiang Nie. An Efficient Attribute-Preserving Framework for Face Swapping. *IEEE Transactions on Multimedia (TMM)*, 2024.
- Harry Cheng, Yangyang Guo, **Tianyi Wang**, Liqiang Nie, Mohan Kankanhalli. Diffusion Facial Forgery Detection. *The 32nd ACM International Conference on Multimedia (ACM MM)*, 2024.
- Yaning Zhang, Zitong Yu, **Tianyi Wang**, Xiaobin Huang, Linlin Shen, Zan Gao, Jianfeng Ren. GenFace: A Large-Scale Fine-Grained Face Forgery Benchmark and Cross Appearance-Edge Learning. *IEEE Transactions on Information Forensics and Security (TIFS)*, 2024.
- **Tianyi Wang**, Kam Pui Chow. Noise Based Deepfake Detection via Multi-Head Relative-Interaction. *Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI)*, 2023. **(Oral Paper)**
- **Tianyi Wang**, Harry Cheng, Kam Pui Chow, Liqiang Nie. Deep Convolutional Pooling Transformer for Deepfake Detection. *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, 2023.
- Xin Liao, Yumei Wang, **Tianyi Wang***, Juan Hu, Xiaoshuai Wu. FAMM: Facial Muscle Motions for Detecting Compressed Deepfake Videos Over Social Networks. *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2023.
- Harry Cheng, Yangyang Guo, **Tianyi Wang**, Qi Li, Xiaojun Chang, Liqiang Nie. Voice-Face Homogeneity Tells Deepfake. *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, 2023.
- Zhenyu Liu, **Tianyi Wang***, Shuwang Zhou, Minglei Shu. Dynamic Facial Expression Recognition in Unconstrained Real-World Scenarios Leveraging Dempster-Shafer Evidence Theory. *Thirty-Second International Conference on Artificial Neural Networks (ICANN)*, 2023.
- Wei Cao, **Tianyi Wang**, Anming Dong, Minglei Shu. TransFS: Face Swapping Using Transformer. *Seventeenth IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, 2023.
- **Tianyi Wang**, Ming Liu, Wei Cao, Kam Pui Chow. Deepfake noise investigation and detection. *Proceedings of the Twenty-Second Annual DFRWS USA (DFRWS)*, 2022.

- Xinchang Zhang, **Tianyi Wang***. Elastic and Reliable Bandwidth Reservation Based on Distributed Traffic Monitoring and Control. *IEEE Transactions on Parallel and Distributed Systems* (TPDS), 2022.
- Yaning Zhang, **Tianyi Wang**, Minglei Shu, Yinglong Wang. A Robust Lightweight Deepfake Detection Network Using Transformers. *Nineteenth Pacific Rim International Conference on Artificial Intelligence* (PRICAI), 2022.

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PREPRINT PAPERS

- **Tianyi Wang**, Xin Liao, Kam Pui Chow, Xiaodong Lin, Yinglong Wang. Deepfake Detection: A Comprehensive Survey from the Reliability Perspective. arXiv:2211.10881
- Harry Cheng, Yangyang Guo, **Tianyi Wang**, Liqiang Nie, Mohan Kankanhalli. Towards Generalizable Deepfake Detection by Primary Region Regularization. arXiv:2307.12534
- Xin Liao, Siliang Chen, Jiaxin Chen, **Tianyi Wang**, Xiehua Li. CTP-Net: Character Texture Perception Network for Document Image Forgery Localization. arXiv:2308.02158
- **Tianyi Wang**, Mengxiao Huang, Harry Cheng, Bin Ma, Yinglong Wang. Robust Identity Perceptual Watermark Against Deepfake Face Swapping. arXiv:2311.01357
- Yaning Zhang, **Tianyi Wang**, Zitong Yu, Zan Gao, Linlin Shen, Shengyong Chen. MFCLIP: Multi-modal Fine-grained CLIP for Generalizable Diffusion Face Forgery Detection. arXiv:2409.09724

PROFESSIONAL SERVICES

- 2022 – 2024, Reviewer, IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
- 2023, Reviewer, International Conference on Computer Vision (ICCV)
- 2022 – 2024, Reviewer, European Conference on Computer Vision (ECCV)
- 2023 – 2025, PC Member, AAAI Conference on Artificial Intelligence (AAAI)
- 2024, Reviewer, IEEE Conference on Multimedia Expo (ICME)
- 2023 – 2024, PC Member, International Conference on Artificial Neural Networks (ICANN)
- 2024, Reviewer, ACM Workshop on Information Hiding and Multimedia Security (IH&MMSec)
- 2024 – 2025, Reviewer, IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)
- 2024, Reviewer, Asian Conference on Computer Vision (ACCV)
- 2023 – 2024, Reviewer, ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)
- 2024, Reviewer, IEEE Transactions on Big Data (TBD)
- 2024, Reviewer, Neural Networks
- 2024, Reviewer, Computer Vision and Image Understanding (CVIU)
- 2023 – 2024, Reviewer, IEEE Signal Processing Letters (SPL)