Dr. SUI Xiangjie

Personal Information

Assistant Professor
Faculty of Data Science
City University of Macau
Macau SAR, China
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Office: Room S502, Stanley Ho Building
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Google Scholar: https://scholar.google.com/citations?user=IAnTG2cAAAAJ&hl

Interests: Computer Vision, Image/Video Processing, Deepfake detection, Visual Quality Assessment, Model Robustness, Virtual Reality

Education

09/2021–06/2024 **Ph.D., Service computing and applications**
Jiangxi University of Finance and Economics, Nanchang, China
Thesis: Perceptual quality assessment of panoramic images based on visual scanpath
Advisor: Prof. Fang Yuming

09/2018–06/2021 **M.Sc., Computer Science and Technology**
Jiangxi University of Finance and Economics, Nanchang, China
Thesis: Perceptual quality assessment of asymmetrically distorted 3D videos
Advisor: Prof. Fang Yuming

09/2014–06/2018 **B.Sc., Computer Science and Technology**
Jiangxi University of Finance and Economics, Nanchang, China

Working Experience

08/2024–Now **Faculty of Data Science, City University of Macau**
Position: Assistant Professor

05/2023–06/2024 **Dept. of Computer Science, City University of Hongkong**
Position: Research Assistant
Supervisor: Prof. Wang Shiqi

Teaching

Database System, spring, 2025.

Linear Algebra, fall, 2024.

Introduction to Operating Systems, fall, 2024.

Honors, Awards & Scholarships

Excellent Master's Thesis in Jiangxi Province, China, 2023.

Outstanding Report Award of the 2nd Postgraduate Academic Forum of Journal of Image and Graphics, 2022.

National Scholarship for Doctoral Student, 2022.

China Council Scholarship, 2021.

Top-15 most prominent papers published in Journal of Image and Graphics, 2021.

National Scholarship for Master Student, 2020.

Community Services

Journal Reviewer

IEEE Transactions on Image Processing

IEEE Transactions on Multimedia

IEEE Transactions on Circuits and Systems for Video Technology

IEEE Transactions on Emerging Topics in Computational Intelligence

IEEE Signal Processing Letters

Conference Reviewer

Neural Information Processing System

International Conference on Computer Vision

IEEE International Conference on Multimedia and Expo

Supervisions

Supervised MSc Students

2024 **Li Songyang** **Thesis**: LVLM Robustness
Su Yanguang **Thesis**: Deepfake detection

Supervised BSc Students

2024 **Zhang Xuanwei, Li Yitian, Nie Junquan, Lin Zenan**
Major: Intelligence Technology and Services
Thesis: Automatic cinematography for panoramic videos

Publications

Journal Publications

[J1] **Sui, Xiangjie**, Zhu, H., Liu, X., Fang, Y., Wang, S., and Wang, Z. Perceptual quality assessment of 360° images based on generative scanpath representation. *IEEE Transactions on Image Processing 34* (2025), 4485–4499

[J2] Zhu, H., **Sui, Xiangjie***, Chen, B., Liu, X., Chen, P., Fang, Y., and Wang, S. 2afc prompting of large multimodal models for image quality assessment. *IEEE Transactions on Circuits and Systems for Video Technology 34*, 12 (2024), 12873–12878

[J3] Wen, W., Li, M., Yao, Y., **Sui, Xiangjie**, Zhang, Y., Lan, L., Fang, Y., and Ma, K. Perceptual quality assessment of virtual reality videos in the wild. *IEEE Transactions on Circuits and Systems for Video Technology 34*, 9 (2024), 8368–8381

[J4] Fang, Y., Li, Z., Yan, J., **Sui, Xiangjie**, and Liu, H. Study of spatio-temporal modeling in video quality assessment. *IEEE Transactions on Image Processing 32* (2023), 2693–2702

[J5] **Sui, Xiangjie**, Ma, K., Yao, Y., and Fang, Y. Perceptual quality assessment of omnidirectional images as moving camera videos. *IEEE Transactions on Visualization and Computer Graphics 28*, 8 (2022), 3022–3034

[J6] Fang, Y., **Sui, Xiangjie**, Wang, J., Yan, J., Lei, J., and Le Callet, P. Perceptual quality assessment for asymmetrically distorted stereoscopic video by temporal binocular rivalry. *IEEE Transactions on Circuits and Systems for Video Technology 31*, 8 (2021), 3010–3024

[J7] **Sui, Xiangjie**, Ding, M., Yan, J., Fang, Y., Zuo, Y., and Tan, Z. Objective quality assessment of synthesized images by local variation measurement. *Signal Processing: Image Communication 92* (2021), 116096

[J8] Fang, Y., **Sui, Xiangjie**, Yan, J., Zuo, Y., Wang, J., and Li, Z. Asymmetrically distorted 3d video quality assessment: From the motion variation to perceived quality. *Signal Processing 183* (2021), 108031

Conference Publications

[C1] Zhao, Z., Wang, M., **Sui, Xiangjie**, He, X., and Wang, S. CTU-level rate control with λ optimization based on visual gaze mechanism for 360-degree versatile video conding. In *IEEE International Conference on Image Processing* (Sep. 2025), pp. 1–6

[C2] **Sui, Xiangjie**, Wang, S., and Fang, Y. A survey on objective quality assessment of omnidirectional images. In *Asia Pacific Signal and Information Processing Association Annual Summit and Conference* (Dec. 2024), pp. 1–6

[C3] **Sui, Xiangjie**, Fang, Y., Zhu, H., Wang, S., and Wang, Z. Scandmm: A deep markov model of scanpath prediction for 360deg images. In *IEEE Conference on Computer Vision and Pattern Recognition* (June 2023), pp. 6989–6999

[C4] Fang, Y., Yao, Y., **Sui, Xiangjie**, and Ma, K. Subjective quality assessment of user-generated 360° videos. In *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops* (Mar. 2023), pp. 723–724

[C5] Li, G., **Sui, Xiangjie**, Yan, J., and Fang, Y. Benchmarking 360° saliency models by general-purpose metrics. In *IEEE International Workshop on Multimedia Signal Processing* (Sep. 2022), pp. 1–6

[C6] Fang, Y., **Sui, Xiangjie**, and Wang, J. A spatial-temporal weighted method for asymmetrically distorted stereo video quality assessment. In *IEEE International Symposium on Circuits and Systems* (May 2019), pp. 1–5

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