Shiqi Wang, Ph.D.

Information	Associate Professor	Tel: $+(852)-3442-7341$
	Department of Computer Science	Fax: $+(852)-3442-0503$
	City University of Hong Kong	shiqwang@cityu.edu.hk
	Hong Kong, China	ttps://cs.cityu.edu.hk/ shiqwang/
GOOGLE SCHOLAR DBLP	 https://scholar.google.com/citations?user=Pr7s2VUAAAAJhl=zh-CN https://dblp.org/pid/58/9145-1.html 	
RESEARCH INTERESTS	 Image and video processing Multimodal data generation Artificial intelligence Multimedia computing and communication 	
	• Computational vision and pattern analysis	
EDUCATION	Ph.D. in Computer Application Technology	Sep. 2008 – Jan. 2014
	 Peking University, Supervisor: Prof. Wen C School of Electronics Engineering and Comp 	
	B.Sc. in Computer Science and Technology	Sep. 2004 – Jul. 2008
	 Harbin Institute of Technology School of Computer Science and Technology	У
Working Experience	Associate Professor	July 2023 – Now
	City University of Hong KongDept. of Computer Science	
	Assistant Professor	May 2017 – June 2023
	City University of Hong KongDept. of Computer Science	
	Research Fellow	Apr. 2016 – Apr. 2017
	• Nanyang Technological University	
	• Rapid-Rich Object Search Lab	
	Postdoctoral Fellow	Mar. $2014 - Mar. 2016$
	• University of Waterloo	

• Dept. of Electrical & Computer Engineering

Intern Mar. 2011 – Aug. 2011

- Microsoft Research Asia
- Media Computing Group

AWARDS

- [A1] CENG Research Excellence Award 2024, CityUHK
- [A2] Highly Ranked Scholars by ScholarGPS (16th globally in the digital image processing field)
- [A3] IEEE ISCAS 2024 Grand Challenge of Neural Network Video Coding, Winner for Hybrid Track, End-to-end Track, and VVC Encoder Track
- [A4] CVPR 2024 Thermal Image Super-Resolution Challenge (GTISR), Winner for Track2
- [A5] Silver Medal at the 49th International Exhibition of Inventions of Geneva 2024
- [A6] Stanford's top 2% most highly cited scientists 2023
- [A7] Gold Medal at the 48th International Exhibition of Inventions Geneva 2023
- [A8] Silver Medal at the 48th International Exhibition of Inventions Geneva 2023
- [A9] Stanford's top 2% most highly cited scientists 2022
- [A10] The Presiden's Awards, City University of Hong Kong, 2021.
- [A11] The IEEE Multimedia Rising Star Award (ICME) 2021.
- [A12] NSFC Excellent Young Scientist Fund (HK & Macau) 2020.
- [A13] IEEE ICME Best Paper Award 2019.
- [A14] IEEE VCIP Best Paper Award 2019.
- [A15] IEEE Multimedia Best Paper Award 2018.
- [A16] IEEE ICIP Best Student Paper Award 2018.
- [A17] Pacific-Rim Conference on Multimedia (PCM) Best Paper Award 2017.

Profes-Sional Service

- [S1] Associate Editor, IEEE Transactions on Circuits and Systems for Video Technology
- [S2] Associate Editor, IEEE Transactions on Image Processing
- [S3] Associate Editor, IEEE Transactions on Multimedia
- [S4] Associate Editor, IEEE Transactions on Cybernetics
- [S5] Associate Editor, IET Electronics Letter
- [S6] Associate Editor, APSIPA Transactions on Signal and Information Processing
- [S7] TPC Co-Chair, 2024 IEEE International Conference on Multimedia and Expo
- [S8] Vice-Chair, MPEG Ad Hoc Group on Generative Face Video Coding

- [S9] Program Committee Member, 2024/2025 IEEE Data Compression Conference
- [S10] Special Session Chair, 2024 IEEE Picture Coding Symposium
- [S11] Finance Chair, 2024 IEEE International Conference on Application-specific Systems, Architectures and Processors
- [S12] Member, Multimedia Communications Technical Committee, IEEE Communications Society
- [S13] IEEE Professional Activities (HK Section)
- [S14] Elected Member, Visual Signal Processing & Communication Technical Committee, IEEE Circuits and Systems Society
- [S15] *Elected Member*, Multimedia Systems & Applications Technical Committee, IEEE Circuits and Systems Society
- [S16] Elected Member, Multimedia-Signal-Processing Technical Committee, IEEE Signal Processing Society
- [S17] Grant Reviewer, The Royal Society Grants
- [S18] Grant Reviewer, National Research Foundation, Singapore
- [S19] Member, CCF YOCSEF HK
- [S20] Technical Exchange Subcommittee Chair, The Multimedia Systems and Applications Technical Committee, IEEE-CAS

SELECTED JOURNAL PUBLICATIONS

- [J1] Hanwei Zhu, Xiangjie Sui, Baoliang Chen, Xuelin Liu, Peilin Chen, Yuming Fang, Shiqi Wang: 2AFC Prompting of Large Multimodal Models for Image Quality Assessment. IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J2] Rongqun Lin, Wenhan Yang, Baoliang Chen, Pingping Zhang, Yue Liu, <u>Shiqi Wang</u> Sam Kwong: HFGlobalFormer: When High-Frequency Recovery Meets Global Context Modeling for Compressed Image Deraindrop. IEEE Transactions on Multimedia, accepted, 2024.
- [J3] Yixuan Li, Peilin Chen, Hanwei Zhu, Keyan, Ding, Leida Li, Shiqi Wang: Deep Shape-Texture Statistics for Completely Blind Image Quality Evaluation. ACM Transactions on Multimedia Computing Communications and Applications, accepted, 2024.
- [J4] Hao Luo, Baoliang Chen, Lingyu Zhu, Peilin Chen, Shiqi Wang: RCNet: Deep Recurrent Collaborative Network for Multi-View Low-Light Image Enhancement. IEEE Transactions on Multimedia, accepted, 2024.

- [J5] Lingyu Zhu, Wenhan Yang, Baoliang Chen, Hanwei Zhu, Xiandong Meng, Shiqi Wang: Temporally Consistent Enhancement of Low-Light Videos via Spatial-Temporal Compatible Learning, International Journal of Computer Vision. accepted, 2024.
- [J6] Rongchuan Zhang, Peisong He, Haoliang Li, <u>Shiqi Wang</u>, Yun Cao: Temporal Diversified Self-Contrastive Learning for Generalized Face Forgery Detection. IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J7] Chenqi Kong, Kexin Zheng, Yibing Liu, Shiqi Wang, Anderson Rocha, Haoliang Li: M³FAS: An Accurate and Robust MultiModal Mobile Face Anti-Spoofing System. IEEE Transactions on Dependable and Secure Computing, accepted, 2024.
- [J8] Yixuan Li, Bolin Chen, Baoliang Chen, Meng Wang, Shiqi Wang, Weisi Lin: Perceptual Quality Assessment of Face Video Compression: A Benchmark and An Effective Method. IEEE Transactions on Multimedia, accepted, 2024.
- [J9] Yibing Liu, Chris Xing Tian, Haoliang Li, <u>Shiqi Wang</u>: Generalization Beyond Feature Alignment: Concept Activation-Guided Contrastive Learning, IEEE Transactions on Image Processing, accepted, 2024.
- [J10] Linwei Zhu, Yun Zhang, Na Li, Wenhui Wu, Shiqi Wang, Sam Kwong: Neural Network Based Multi-Level In-Loop Filtering for Versatile Video Coding, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J11] Xi Xie, Meng Wang, Junru Li, Kai Zhang, Li Zhang, Shiqi Wang: Enhanced Motion Compensated Temporal Filter for VVenC, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J12] Qiuping Jiang, Feiyang Liu, Zhihua Wang, Shiqi Wang, Weisi Lin: Rethinking and Conceptualizing Just Noticeable Difference Estimation by Residual Learning, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J13] Binzhe Li, Bolin Chen, Zhao Wang, Shiqi Wang, Yan Ye: Semantic Face Compression for Metaverse: A Compact 3D Descriptor Based Approach, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J14] Xiaohan Fang, Peilin Chen, Meng Wang, Xi Xie, Shiqi Wang, Shanshe Wang, Siwei Ma: Exploiting Bidirectional Quality Impulse for Reference Picture Resampled Gaming Video Coding, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J15] Hanwei Zhu, Baoliang Chen, Lingyu Zhu, Peilin Chen, Linqi Song, Shiqi Wang: Video Quality Assessment for Spatio-Temporal Resolution Adaptive Coding, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.

- [J16] Xinju Wu, Pingping Zhang, Meng Wang, Peilin Chen, <u>Shiqi Wang</u>, Sam Kwong: Geometric Prior Based Deep Human Point Cloud Geometry Compression, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J17] Yu Tian, Shiqi Wang, Baoliang Chen, Sam Kwong: Causal Representation Learning for GAN-Generated Face Image Quality Assessment, IEEE Transactions on Circuits and Systems for Video Technology, accepted, 2024.
- [J18] Zhangkai Ni, Yue Liu, Keyan Ding, Wenhan Yang, Hanli Wang, Shiqi Wang: Opinion-Unaware Blind Image Quality Assessment using Multi-Scale Deep Feature Statistics, IEEE Transactions on Multimedia, accepted, 2024.
- [J19] Dongjie Ye, Baoliang Chen, <u>Shiqi Wang</u>, Sam Kwong: CodedBGT: Code Bank-Guided Transformer for Low-light Image Enhancement, IEEE Transactions on Multimedia, accepted, 2024.
- [J20] Xiaofeng Huang; Ran Tang; Rui Pan; Haibing Yin; Zhao Wang; Shiqi Wang; Siwei Ma: Parallelized RDOQ Algorithm and Fully Pipelined Hardware Architecture for AVS3 Video Coding, IEEE Transactions on Circuits and Systems for Video Technology, 34(7): 6430-6444, 2024.
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- [J22] Yu Tian, Baoliang Chen, <u>Shiqi Wang</u>, Sam Kwong: Towards Thousands to One Reference: Can We Trust the Reference Image for Quality Assessment?, IEEE Transactions on Multimedia, accepted, 2024.
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- [J25] Qi Mao, Chongyu Wang, Meng Wang, Shiqi Wang, Ruijie Chen, Libiao Jin, Siwei Ma: Scalable Face Image Coding via StyleGAN Prior: Toward Compression for Human-Machine Collaborative Vision. IEEE Transactions on Image Processing, 33: 408-422, 2024.
- [J26] Baoliang Chen, Hanwei Zhu, Lingyu Zhu, Shiqi Wang, Sam Kwong: Deep Feature Statistics Mapping for Generalized Screen Content Image Quality Assessment. IEEE Transactions on Image Processing, 33: 3227-3241, 2024.

- [J27] Xiangrui Liu, Meng Wang, Shiqi Wang, Sam Kwong: Bilateral Context Modeling for Residual Coding in Lossless 3D Medical Image Compression. IEEE Transactions on Image Processing, 33: 2502-2513, 2024.
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- [J32] Haifeng Guo, Sam Kwong, Dongjie Ye, <u>Shiqi Wang</u>: Enhanced Context Mining and Filtering for Learned Video Compression. IEEE Transactions on Multimedia. 26: 3814-3826, 2024.
- [J33] Wenhan Yang, Robby T. Tan, <u>Shiqi Wang</u>, Alex C. Kot and Jiaying Liu: Learning to Remove Rain in Video With Self-Supervision. IEEE Transactions on Pattern Analysis and Machine Intelligence, 46(3): 1378-1396,2024.
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- [J36] Yi Chen, Yunhao Mao, <u>Shiqi Wang</u>, Xianguo Zhang, Sam Kwong: Learning From Coding Features: High Efficiency Rate Control for AOMedia Video 1. IEEE Multimedia. 30(4): 16-25, 2023.
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- [J38] Chris Xing Tian, Haoliang Li, Xiaofei Xie, Yang Liu and <u>Shiqi Wang</u>: Neuron Coverage-Guided Domain Generalization. IEEE Transactions on Pattern Analysis and Machine Intelligence. 45(1): 1302-1311, 2023.

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- [J42] Yi Chen, <u>Shiqi Wang</u>, Horace Ho-Shing Ip, Sam Kwong: Rate distortion optimization with adaptive content modeling for random-access versatile video coding. Information Sciences. 645: 119325, 2023.
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- [J44] Shurun Wang, Zhao Wang, Shiqi Wang, Yan Ye: Deep Image Compression Toward Machine Vision: A Unified Optimization Framework. IEEE Transactions on Circuits and Systems for Video Technology. 33(6): 2979-2989, 2023.
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- [J50] Yue Liu, Zhangkai Ni, **Shiqi Wang**, Hanli Wang, Sam Kwong: High Dynamic Range Image Quality Assessment Based on Frequency Disparity. IEEE Transactions on Circuits and Systems for Video Technology, 33(8): 4435-4440, 2023.

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