

CHEN CHAOFENG (陈超锋)

🏠 <https://chaofengc.github.io> · 🌐 <https://github.com/chaofengc> · ✉ chaofenghust@gmail.com · ☎ (+86) 13244706899

EDUCATION

The University of Hong Kong (HKU), Hong Kong SAR, China

Sep. 2015 – Jan. 2021

Ph.D. Computer Science

- Supervisor: Dr. Kenneth K.Y. Wong
- PhD Dissertation: Face Sketch Synthesis and Face Super Resolution in the Wild with Deep Learning

Huazhong University of Science and Technology (HUST), Wuhan, China

Sep. 2011 – Jun. 2015

B.Eng. Computer Science

- GPA: 92.3/100; Rank: Top 1% out of 300

RESEARCH INTERESTS

Computer Vision: Low-level vision, including image/video quality assessment, image restoration and enhancement; Visual content generation; Image-to-image translation; 3D-aware image rendering; Face related tasks

RESEARCH/WORKING EXPERIENCE

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| • Postdoctoral research fellow at S-Lab in NTU, worked with Prof. Weisi Lin | Sep. 2021 – Jan. 2025 |
| • Research Assistant at GAP Lab CUHKSZ, worked with Prof. Xiaoguang Han | Mar. 2021 – Aug. 2021 |
| • Research Intern at Alibaba DAMO Academy, worked with Prof. Lei Zhang and Dr. Xiaoming Li | Nov. 2019 – Mar. 2021 |
| • Research Visitor at VLLab UC Merced, worked with Prof. Ming-Hsuan Yang | May. 2019 – Oct. 2019 |
| • Research Intern at Tencent AI Lab, worked with Prof. Zhifeng Li and Dr. Dihong Gong | Jun. 2018 – Mar. 2019 |

SELECTED PUBLICATIONS (FULL LIST IN GOOGLE SCHOLAR, >2900 CITATIONS)

(# corresponding author, * equal contribution)

(Co-)First Author Papers

- [1] **[MM 2024 Oral] Chaofeng Chen**, Yang Sensen, Haoning Wu, Liang Liao, Zicheng Zhang, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin. “Q-Ground: Image Quality Grounding with Large Multi-modality Models.” *ACM Multimedia (MM)*, 2024.
- [2] **[ECCV2024] Chaofeng Chen***, Annan Wang*, Haoning Wu, Liang Liao, Wenxiu Sun, Qiong Yan, Weisi Lin. “Enhancing Diffusion Models with Text-Encoder Reinforcement Learning.” *European Conference on Computer Vision (ECCV)*, 2024.
- [3] **[AAAI 2024] Chaofeng Chen**, Shangchen Zhou, Liang Liao, Haoning Wu, Wenxiu Sun, Qiong Yan, Weisi Lin. “Iterative Token Evaluation and Refinement for Real-World Super-Resolution.” *Association for the Advancement of Artificial Intelligence (AAAI)*, 2024.
- [4] **[MM 2022 Oral] Chaofeng Chen***, Xinyu Shi*, Yipeng Qin, Xiaoming Li, Tao Yang, Xiaoguang Han, Shihui Guo. “Real-World Blind Super-Resolution via Feature Matching with Implicit High-Resolution Priors.” *ACM Multimedia*, 2022.
- [5] **[CVPR 2021] Chaofeng Chen**, Xiaoming Li, Lingbo Yang, Xianhui Lin, Lei Zhang, Kwan-Yee K. Wong. “Progressive Semantic-Aware Style Transformation for Blind Face Restoration.” *Computer Vision and Pattern Recognition (CVPR)*, 2021.
- [6] **[ACCV 2018] Chaofeng Chen**, Liu Wei, Xiao Tan, K.-Y. K. Wong. “Semi-Supervised Learning for Face Sketch Synthesis in the Wild.” *Asia Conference on Computer Vision (ACCV)*, 2018.
- [7] **[WACV 2018] Chaofeng Chen***, Xiao Tan*, K.-Y. K. Wong. “Face Sketch Synthesis with Style Transfer using Pyramid Column Feature.” *Winter Conference on Applications of Computer Vision (WACV)*, 2018.
- [8] **[TIP2024] Chaofeng Chen**, Jiadi Mo, Jingwen Hou, Haoning Wu, Liang Liao, Wenxiu Sun, Qiong Yan, Weisi Lin. “TOPIQ: A Top-down Approach from Semantics to Distortions for Image Quality Assessment.” *IEEE Transactions on Image Processing (TIP)*, 2024.
- [9] **[CVIU 2023] Chaofeng Chen**, Wei Liu, Xiao Tan, Kwan-Yee K. Wong. “Semi-supervised Cycle-GAN for face photo-sketch translation in the wild.” *Computer Vision and Image Understanding (CVIU)*, 2023.
- [10] **[TIP 2020] Chaofeng Chen**, Dihong Gong, Hao Wang, Zhifeng Li, Kwan-Yee K. Wong. “Learning Spatial Attention for Face Super-Resolution.” *IEEE Transactions on Image Processing (TIP)*, 2020.

Conference Papers

- [11] [ICLR2025] Mengcheng Lan, **Chaofeng Chen**, Yue Zhou, Jiaying Xu, Yiping Ke, Xinjiang Wang, Litong Feng, Wayne Zhang. “Text4Seg: Reimagining Image Segmentation as Text Generation” *International Conference on Learning Representations (ICLR)*, 2025.
- [12] [ECCV2024] Mengcheng Lan, **Chaofeng Chen**, Yiping Ke, Xinjiang Wang, Litong Feng, Wayne Zhang. “ClearCLIP: Decomposing CLIP Representations for Dense Vision-Language Inference.” *European Conference on Computer Vision (ECCV)*, 2024.
- [13] [ECCV2024] Mengcheng Lan, **Chaofeng Chen**, Yiping Ke, Xinjiang Wang, Litong Feng, Wayne Zhang. “ProxyCLIP: Proxy Attention Improves CLIP for Open-Vocabulary Segmentation.” *European Conference on Computer Vision (ECCV)*, 2024.
- [14] [CVPR2024] Kangmin Xu, Liang Liao, Jing Xiao, **Chaofeng Chen**, Haoning Wu, Qiong Yan, Weisi Lin. “Local Distortion Aware Efficient Transformer Adaptation for Image Quality Assessment.” *Computer Vision and Pattern Recognition (CVPR)*, 2024.
- [15] [CVPR2024] Haoning Wu, Zicheng Zhang, Erli Zhang, **Chaofeng Chen**, Liang Liao, Annan Wang, Kaixin Xu, Chunyi Li, Jingwen Hou, Guangtao Zhai, Geng Xue, Wenxiu Sun, Qiong Yan, Weisi Lin. “Q-Instruct: Improving Low-level Visual Abilities for Multi-modality Foundation Models.” *Computer Vision and Pattern Recognition (CVPR)*, 2024.
- [16] [ICLR 2024 **Spotlight**] Haoning Wu*, Zicheng Zhang*, Erli Zhang*, **Chaofeng Chen**, Liang Liao, Annan Wang, Chunyi Li, Wenxiu Sun, Qiong Yan, Guangtao Zhai, Weisi Lin. “Q-Bench: A Benchmark for General-Purpose Foundation Models on Low-level Vision.” *International Conference on Learning Representations (ICLR)*, 2024.
- [17] [ICCV 2023] Haoning Wu*, Erli Zhang*, Liang Liao*, **Chaofeng Chen**, Jingwen Hou, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin. “Exploring Video Quality Assessment on User Generated Contents from Aesthetic and Technical Perspectives” *International Conference on Computer Vision (ICCV)*, 2023.
- [18] [AAAI 2023] Shuliang Ning*, Mengcheng Lan*, Yanran Li, **Chaofeng Chen**, Qian Chen, Xunlai Chen, Xiaoguang Han, Shuguang Cui. “MIMO Is All You Need: A Strong Multi-In-Multi-Out Baseline for Video Prediction.” *Association for the Advancement of Artificial Intelligence (AAAI)*, 2023.
- [19] [NeurIPS 2022] Wenqi Yang, Guanying Chen, **Chaofeng Chen**, Zhenfang Chen, Kwan-Yee K. Wong. “S³-NeRF: Neural Reflectance Field from Shading and Shadow under a Single Viewpoint.” *Conference on Neural Information Processing Systems (NeurIPS)*, 2022.
- [20] [ECCV 2022] Haoning Wu, **Chaofeng Chen**, Jingwen Hou, Liang Liao, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin. “FAST-VQA: Efficient End-to-end Video Quality Assessment with Fragment Sampling.” *European Conference on Computer Vision (ECCV)*, 2022.
- [21] [ECCV 2022] Wenqi Yang, Guanying Chen, **Chaofeng Chen**, Zhenfang Chen, Kwan-Yee K. Wong. “PS-NeRF: Neural Inverse Rendering for Multi-view Photometric Stereo.” *European Conference on Computer Vision (ECCV)*, 2022.
- [22] [ECCV2022] Xiaoming Li, **Chaofeng Chen**, Xianhui Lin, Wangmeng Zuo, Lei Zhang. “From Face to Natural Image: Learning Real Degradation for Blind Image Super-Resolution.” *European Conference on Computer Vision (ECCV)*, 2022.
- [23] [MM 2022 **Oral**] Liang Liao, Kangmin Xu, Haoning Wu, **Chaofeng Chen**, Wenxiu Sun, Qiong Yan, Weisi Lin. “Exploring the Effectiveness of Video Perceptual Representation in Blind Video Quality Assessment.” *ACM Multimedia*, 2022.
- [24] [ICCV 2021] Guanying Chen, **Chaofeng Chen**, Shi Guo, Zhetong Liang, K.-Y. K. Wong, Lei Zhang. “HDR Video Reconstruction: A Coarse-to-fine Network and A Real-world Benchmark Dataset.” *International Conference on Computer Vision (ICCV)*, 2021.
- [25] [ECCV 2020] Xiaoming Li, **Chaofeng Chen**, Shangchen Zhou, Xianhui Lin, Wangmeng Zuo, Lei Zhang. “Blind Face Restoration via Deep Multi-scale Component Dictionaries.” *European Conference on Computer Vision (ECCV)*, 2020.
- [26] [AAAI 2018 **Oral**] Wei Liu, **Chaofeng Chen**, K.-Y. K. Wong. “Char-Net: A Character-Aware Neural Network for Distorted Scene Text Recognition.” *AAAI Conference on Artificial Intelligence (AAAI)*, 2018.

Journal Papers

- [27] [TPAMI 2023] Haoning Wu, **Chaofeng Chen**, Liang Liao, Jingwen Hou, Wenxiu Sun, Qiong Yan, Weisi Lin. “Neighbourhood Representative Sampling for Efficient End-to-end Video Quality Assessment.” *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2023.
- [28] [TCSVT 2023] Haoning Wu, **Chaofeng Chen**, Liang Liao, Jingwen Hou, Wenxiu Sun, Qiong Yan, Weisi Lin. “DisCoVQA: Temporal Distortion-Content Transformers for Video Quality Assessment.” *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2023.
- [29] [TIP 2023] Wenqi Yang, Zhenfang Chen, **Chaofeng Chen**, Guanying Chen, Kwan-Yee K. Wong. “Deep Face Video Inpainting via UV Mapping.” *IEEE Transactions on Image Processing (TIP)*, 2023.

PROFESSIONAL ACTIVITIES

- Conference Reviewer
 - IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
 - International Conference on Computer Vision (ICCV)

- European Conference on Computer Vision (ECCV)
- International Conference on Learning Representations (ICLR)
- Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- Association for the Advancement of Artificial Intelligence (AAAI)
- ACM International Conference on Multimedia (ACM MM)
- Journal Reviewer
 - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
 - International Journal of Computer Vision (IJCV)
 - IEEE Transactions on Image Processing (TIP)
 - IEEE Transactions on Multimedia (TMM)
 - IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
 - Elsevier Journal of Neurocomputing (Neurocomputing)

TEACHING EXPERIENCE

- Teaching Assistant at Department of Computer Science, HKU
 - COMP3317 Computer Vision Spring, 2017 – 2018
 - COMP2396 Object-Oriented Programming and Java Fall, 2016 – 2017
 - COMP2396 Object-Oriented Programming and Java Spring, 2015 – 2016

HONORS AND AWARDS

- Hong Kong PhD Fellowship (*HKPF, Highest Distinction in Hong Kong*) 2015 – 2018
- National Scholarship (*Top Distinction in China*) 2013 – 2014
- National Encouragement Scholarship (*Top Distinction in China*) 2012 – 2014
- Excellent Student for Academic Performance of Qiming College (*Top Distinction in HUST*) 2012 – 2013