# CHEN CHAOFENG

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## 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: 1/300

## RESEARCH INTERESTS

**Computer Vision:** Multi-modal content generation; Real world image restoration and enhancement; Image-to-image translation; 3D-aware image rendering; Face related tasks

## RESEARCH/WORKING EXPERIENCE

- Postdoctoral research fellow at S-Lab in NTU, working with Prof. Weisi Lin — Sep. 2021 – Present
- 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

## PUBLICATIONS (GOOGLE SCHOLAR)

**Highlight summary:** CVPR (1), ICCV (1), ECCV (4), NeurIPS (1), MM (2), AAAI (2), TIP (2) — Orals x3
(# corresponding author, * equal contribution)

### Conference Papers

[1] [**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.

[2] [**NeurIPS 2022**] Wenqi Yang, Guanying Chen, **Chaofeng Chen**, Zhenfang Chen, Kwan-Yee K. Wong. $S^3$-NeRF: Neural Reflectance Field from Shading and Shadow under a Single Viewpoint. *Conference on Neural Information Processing Systems (NeurIPS)*, 2022.

[3] [**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.

[4] [**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.

[5] [**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.

[6] [**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.

[7] [**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.

[8] [**ICIP 2022**] Shaozhe Hao, **Chaofeng Chen**, Zhenfang Chen, Kwan-Yee K. Wong. A Unified Framework for Masked and Mask-Free Face Recognition via Feature Rectification. *IEEE International Conference on Image Processing (ICIP)*, 2022.

[9] [**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.

[10] [**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.

[11] [**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.

[12] [**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.

[13] [**ACCV 2018**] Wei Liu, **Chaofeng Chen**, K.-Y. K. Wong. SAFE: Scale Aware Feature Encoder for Scene Text Recognition. Asia Conference on Computer Vision (ACCV), 2018.

[14] [**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.

[15] [**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.

[16] [**BMVC 2016**] Wei Liu, **Chaofeng Chen**, K.-Y. K. Wong, Z. Su and J. Han. STAR-Net: A SpaTial Attention Residue Network for Scene Text Recognition. *British Machine Vision Conference (BMVC)*, 2016.

### Journal Papers

[17] [**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.

[18] [**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.

## 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)
  - 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)
  - 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

## Skills

- Programming in: `Python, C/C++, Java, Matlab`
- Language: Mandarin (native speaker), English (working proficiency)
- Tools: PyTorch, LaTeX, OpenCV, Linux, Vim, Git, etc.