XIAODONG CUN

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WORK INFORMATION

Senior Researcher, **Tencent AI Lab**   *Sep. 2021 - Now*

EDUCATION

Ph.D, Computer Science, **University of Macau**   *Aug. 2018 - Jun. 2021*

M.S, Computer Science, **University of Macau**   *Aug. 2015 - Jun. 2018*

B.S, Computer Science, **Xidian University**   *Sep. 2011 - Jun. 2015*

PUBLICATIONS

CoordFill: Efficient High-Resolution Image Inpainting via Parameterized Coordinate Querying.
Weihuang Liu, **Xiaodong Cun#**, Chi-Man Pun#, Menghan Xia, Yong Zhang, and Jue Wang. In *Thirty-Seven AAAI Conference on Artificial Intelligence* (**AAAI**), 2023. (Corresponding Author)

VideoReTalking: Audio-based Lip Synchronization for Talking Head Video Editing In the Wild.
Kun Cheng*, **Xiaodong Cun#***, Yong Zhang, Menghan Xia, Fei Yin, Mingrui Zhu, Xuan Wang, Jue Wang, and Nannan Wang. In **SIGGRAPH Asia** *(Conference Track), 2022. (Joint First Author & Corresponding Author).*

StyleHEAT: One-Shot High-Resolution Editable Talking Face Generation via Pretrained StyleGAN
Fei Yin, Yong Zhang, **Xiaodong Cun**, Mingdeng Cao, Yanbo Fan, Xuan Wang, Qingyan Bai, Baoyuan Wu, Jue Wang, Yujiu Yang. In *European Conference on Computer Vision (***ECCV***), 2022.*

Spatial-Separated Curve Rendering Network for Efficient and High-Resolution Image Harmonization.
Jingtang Liang*, **Xiaodong Cun***, Chi-Man Pun and Jue Wang. In *European Conference on Computer Vision (***ECCV***), 2022. (Joint First Author).*

Uformer: A General U-Shaped Transformer for Image Restoration.
Zhendong Wang, **Xiaodong Cun#**, Jianmin Bao and Jianzhuang Liu, Wengang Zhou, Houqiang Li. In *Computer Vision and Pattern Recognition (***CVPR***), 2022. (Corresponding Author).*

Split then Refine: Sequential Attention-guided ResUNets for Blind Single Image Visible Watermark Removal
Xiaodong Cun and Chi-Man Pun. In *Thirty-Fifth AAAI Conference on Artificial Intelligence* (**AAAI**), 2021.

Defocus Blur Detection via Depth Distillation.
Xiaodong Cun and Chi-Man Pun. In *European Conference on Computer Vision* (**ECCV**), 2020.

Towards Ghost-free Shadow Removal via Dual Hierarchical Aggregation Network and Shadow Matting GAN.
Xiaodong Cun, Chi-Man Pun and Cheng Shi. In *Thirty-Fourth AAAI Conference on Artificial Intelligence* (**AAAI**), 2020.

Improving the Harmony of the Composite Image by Spatial-Separated Attention Module.
Xiaodong Cun and Chi-Man Pun. *IEEE Transactions on Image Processing* (**TIP**), vol. 29, 2020.

Image Splicing Localization via Semi-Global Network and Fully Connected Conditional Random Fields.
Xiaodong Cun and Chi-Man Pun. In *Proceedings of the European Conference on Computer Vision Workshop* , 2018.

Depth Assisted Full Resolution Network for Single Image based View Synthesis.
Xiaodong Cun, Feng Xu, Chi-Man Pun and Hao Gao. In **SIGGRAPH 2018** *Poster Session* & *IEEE Computer Graphics and Application*, vol. 39, 2018.

Applying stochastic second-order entropy images to multi-modal image registration.
Xiaodong Cun, Chi-Man Pun and Hao Gao. *Signal Processing: Image Communication,* vol. 65, 2018.

PREPRINT PAPERS

DH-GAN: Image Manipulation Localization via a Dual Homology-aware Generative Adversarial Network.
Weihuang Liu*, **Xiaodong Cun*** and Chi-Man Pun. *Journal submission, Under Review. (Joint First Author).*

Learning Enriched Illuminants for Cross and Single Sensor Color Constancy.
Xiaodong Cun, Zhendong Wang, Chi-Man Pun, Jianzhuang Liu and Xu Jia. *Journal submission, Under Review.*

EXPERIENCES

Research Assistant, IPPR Lab, University of Macau   *Apr. 2016 - Jun. 2021*
Supervised by Dr. Chi-Man Pun
Developing learning-based algorithms in computational photography and low-level vision fields.

Research Intern, Computer Vision Lab, Huawei Noak'Ark Lab   *Mar. 2020 - Nov. 2020*
Supervised by Dr. Jianzhuang Liu
Focusing on the learning-based algorithms for Image Signal Processor (ISP).

Algorithm Intern, Computer Vision Lab, HIKVision Research Institute   *Mar. 2018 - Aug. 2018*
Short internship on network slimming.

Frond-end Software Intern, Alibaba Inc.   *Jun. 2014 - Sep. 2014*

TEACHING EXPERIENCE

Teaching Assitant, Faculty of Science and Technology, **University of Macau**

* Computer Graphics 2016-2017
* Computer Science (Programming) 2017-2018

SKILLS

Languages: Python, Matlab, JavaScript, C
Framework: PyTorch, TensorFlow, Torch
Tools: PhotoShop, Illustrator, LaTeX