

Qunliang Xing

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Personal Profile

Qunliang Xing received the BEng degree and Honors degree from Beihang University, Beijing, China in 2019. He is currently pursuing the Ph.D. degree at Beihang University, advised by Professor Mai Xu. His research interests include image/video enhancement and coding. He has published several papers in IEEE TPAMI and ECCV, one of which is top 1% highly cited according to the essential science indicators (ESI). He has won two NTIRE championships. His open-source projects have received more than 600 stars. He is awarded the Active Contributor by OpenMMLab. He has won the second place in the Beihang 100m final and the Beihang soccer championship as the school team captain. He is a reviewer for several IEEE transactions including TIP, TMM, TCSVT and JAS.

Education

Beihang University

Ph.D. student of Engineering, School of Electronics and Information Engineering

Beijing, China

Sept 2019 - Current

- Honors Ph.D. Student at Shen Yuan Honors College

Beihang University

Bachelor of Engineering, School of Electronics and Information Engineering

Beijing, China

Sept 2015 - July 2019

- Honors Bachelor at Shen Yuan Honors College

Shenzhen Nanshan Foreign Language School

High School

Shenzhen, China

Sept 2012 - July 2015

- Top Scorer of Science in 2015 College Entrance Examination

Selected Publications

DAQE: Enhancing the Quality of Compressed Images by Exploiting the Inherent Characteristic of Defocus

Qunliang Xing, Mai Xu, Xin Deng, Yichen Guo

IEEE Transactions on Pattern Analysis and Machine Intelligence (2023). 2023

Progressive Training of A Two-Stage Framework for Video Restoration

Qunliang Xing, Meisong Zheng, Minglang Qiao, Mai Xu, Lai Jiang, Huaida Liu, Ying Chen

IEEE / CVF Computer Vision and Pattern Recognition (CVPR) Workshops, 2022

DeepQMTT: A Deep Learning Approach for Fast QMTT-Based CU Partition of Intra-Mode VVC

Tianyi Li, Mai Xu, Runzhi Tang, Ying Chen, Qunliang Xing

IEEE Transactions on Image Processing (2021). 2021

Early Exit Or Not: Resource-Efficient Blind Quality Enhancement for Compressed Images

Qunliang Xing, Mai Xu, Tianyi Li, Zhenyu Guan

European Conference on Computer Vision (ECCV), 2020

MFQE 2.0: A New Approach for Multi-Frame Quality Enhancement on Compressed Video

Qunliang Xing, Zhenyu Guan, Mai Xu, Ren Yang, Tie Liu, Zulin Wang

IEEE Transactions on Pattern Analysis and Machine Intelligence (2019). 2019

Work Experience

IEEE

Reviewer of International Journals and Conferences

2021 - Current

IEEE Transactions on Image Processing (TIP), IEEE Transactions on Multimedia (TMM), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), IEEE/CAA Journal of Automatica Sinica (JAS), IEEE International Conference on Multimedia and Expo (ICME)

Tao Technology, Alibaba Group

Research Intern on Video Quality Enhancement

Dec 2021 - Current

Winning two championships and one runner-up in the NTIRE 2022 challenge.

Tencent

Participant in Tencent Rhino-bird Open-source Training Program

July 2021 - Sept 2021

Selected among the top 127 out of 1,800+ candidates.

Shen Yuan Honors College, Beihang University

Mentor of Undergraduates

2020 - 2021

Awarded the Shen Yuan Excellent Mentor (Top 9/36).

Beihang University

Teaching Assistant

Sept 2020 - Jan 2021

Introduction to Machine Learning.

2012 Lab, Huawei

Research on Video Quality Enhancement of HW265 Codec

2018 - 2019

Improving the RD performance of HW265 by 10%.

Intellectual Properties

- CN111415311** Resource-saving Image Quality Enhancement Model
2020SR0404831 Resource-Efficient Quality Enhancement System for HEVC based on Early-Exit Mechanism
2020SR0472737 Multi-frame Video Quality Enhancement System

Selected Awards

- 2022 **Two Championships and One Runner-up**, NTIRE 2022 Challenge on Super-Resolution and Quality Enhancement of Compressed Video
2022 **Glarun Scholarship**, The 14TH Research Institute, China Electronics Technology Group Corporation (CETC)
2022 **Beihang Outstanding Student**, Beihang University
2022 **Second Place in the 100-Meter Race**, Beihang Sports Day, Beihang University
2021 **Shen Yuan Excellent Mentor**, Shen Yuan Honors College, Beihang University
2021 **Beihang Merit Student**, Beihang University
2019 **Beihang Excellent Graduate**, Beihang University
2018 **Beihang Merit Student**, Beihang University
2017 **Championship of Soccer (Starting CB)**, Beihang Sports Festival, Beihang University
2015 **Beihang Outstanding Student**, Beihang University
2014 **Shenzhen Merit Student**, Education Bureau of Shenzhen Municipality

Languages

- Chinese** Native
English Native proficiency