Juncheng Li

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Biography

I am a PhD student at the School of Computer Science and Technology, East China Normal University (ECNU), co-advised by **Prof. Guixu Zhang** and **Prof. Faming Fang**. I will graduate in 2021.07.

My research interests include artificial intelligence and its applications to computer vision (e.g., image stitching, image segmentation, & crowd counting) and images processing (e.g., image super-resolution, image denoising, & image dehazing).

Education Background

2016.09 - Now	East China Normal University	Computer Science and Technology	PhD
2012.09 - 2016.07	Jiangxi Normal University	Computer Science and Technology	Bachelor

Research Experience

- The Chinese University of Hong Kong (CUHK), Hong Kong. 2019.08.16--2019.09.30
  Research Assistant
  Topic: Image Compression
  Supervisor: Prof. ZENG Tieyong (Director of CMAI)
- The Chinese University of Hong Kong (CUHK), Hong Kong. 2018.05.10--2018.09.10
  Research Assistant
  Topic: Image Restoration
  Supervisor: Prof. ZENG Tieyong (Director of CMAI)

Publications

Journal Papers

- **MDCN: Multi-scale Dense Cross Network for Image Super-Resolution**
  Juncheng Li*, Faming Fang, Jiaqian Li, Kangfu Mei, and Guixu Zhang.
  IEEE Transactions on Circuits and Systems for Video Technology, **IEEE TCSVT**, 2020. (*IF=4.133, SCI-2*)

- **Soft-Edge Assisted Network for Single Image Super-Resolution**
  Fang, Faming, **Juncheng Li***, and Tieyong Zeng.
  IEEE Transactions on Image Processing, **IEEE TIP**, 2020. (*IF=9.340, SCI-1*)
  *First contributor. Author names alphabetically.
  This achievement was completed during the visit of the Chinese University of Hong Kong (CUHK).

- **Multi-level Edge Features Guided Network for Image Denoising**
  Fang, Faming, **Juncheng Li***, Yiting Yuan, Tieyong Zeng, and Guixu Zhang.
  IEEE Transactions on Neural Networks and Learning Systems, **IEEE TNNLS**, 2020. (*IF=8.793, SCI-1*)
  *First contributor. Author names alphabetically.
  This achievement was completed during the visit of the Chinese University of Hong Kong (CUHK).

- **Luminance-aware Pyramid Network for Low-light Image Enhancement**
  Jiaqian Li[#], **Juncheng Li[#]**, Faming Fang, Fang Li, and Guixu Zhang.
  IEEE Transactions on Multimedia, **IEEE TMM**, 2020. (*IF=6.051, SCI-1*)
  [#]Equal Contribution.

- **Progressive Back-traced Dehazing Network based on Multi-resolution Recurrent Reconstruction**
  Qiaosi Yi, Aiwen Jiang, **Juncheng Li**, Jianyi Wan, and Mingwen Wang.
  IEEE Access, 2020. (*IF=4.098, SCI-2*)
- **Deep Residual Refining based Pseudo Multi-frame Network for Effective Single Image Super-Resolution**
  Kangfu Mei, Aiwen Jiang, **Juncheng Li**, Bo Liu, Jihua Ye, and Mingwen Wang.
  IET Image Processing, 2018. (*IF=2.004, SCI-3*)
- **Composition Network for Image Stitching**
  Qinyan Dai, Faming Fang, **Juncheng Li**, Aiming Zhou, and Guixu Zhang.
  Pattern recognition, **PR,** 2020. (*IF=7.196, SCI-1*)
  Under Review
- **Multi-scale Grid Network for Image Deblurring with High-frequency Guidance**
  Yang Liu, Faming Fang, **Juncheng Li**, Tingting Wang, Yun Sheng, Guixu Zhang.
  IEEE Transactions on Multimedia, **IEEE TMM**, 2020. (*IF=6.051, SCI-1*)
  Under Review

Conference Papers

- **HighEr-Resolution Network for Image Demosaicing and Enhancing**
  Kangfu Mei, **Juncheng Li**, Jiajie Zhang, Haoyu Wu, Jie Li, and Rui Huang.
  In Proceedings of the International Conference on Computer Vision Workshop, **ICCVW**, 2019.
  ICCV - AIM2019 Winner.
- **Lightweight and Accurate Recursive Fractal Network for Image Super-Resolution**
  Juncheng Li*, Yiting Yuan, Kangfu Mei, and Faming Fang.
  In Proceedings of the International Conference on Computer Vision Workshop, **ICCVW**, 2019.
  Oral Presentation.
- **AIM 2019 Challenge on Example-based RAW to RGB Mapping**
  A Ignatov, R Timofte, SJ Ko, SW Kim, **Juncheng Li**, et.al.
  In Proceedings of the International Conference on Computer Vision Workshop, **ICCVW**, 2019.
- **Multi-scale Residual Network for Image Super-Resolution**
  Juncheng Li*, Faming Fang, Kangfu Mei, and Guixu Zhang.
  In Proceedings of the European Conference on Computer Vision, **ECCV**, 2018.
- **Progressive Feature Fusion Network for Realistic Image Dehazing**
  Kangfu Mei, Aiwen Jiang, **Juncheng Li**, and Mingwen Wang.
  In Proceedings of the Asian Conference on Computer Vision, **ACCV**, 2018.
  ChinaMM2018 3rd Place.
- **An Effective Single-Image Super-Resolution Model Using Squeeze-and-Excitation Networks**
  Kangfu Mei, Aiwen Jiang, **Juncheng Li,** Jihua Ye, and Mingwen Wang.
  In Proceedings of the International Conference on Neural Information Processing, **ICONIP**, 2018.
- **NTIRE 2018 Challenge on Image Dehazing: Methods and Results**
  C Ancuti, CO Ancuti, R Timofte, L Van Gool, L Zhang, **Juncheng Li**, Faming Fang, et.al.
  In Proceedings of the Conference on Computer Vision and Pattern Recognition Workshop, **CVPRW**, 2018.
- **Single Image Dehazing via Multi-scale Topological Network**
  Qiaosi Yi[#], **Juncheng Li**[#], Aiwen Jiang, and Faming Fang.
  In Proceedings of the Association for the Advance of Artificial Intelligence, **AAAI**, 2021.
  [#]Equal Contribution.
  Under Review
- **Scale-Aware Network with Regional and Semantic Attention for Crowd Counting under Cluttered Background**

Qiaosi Yi, Yunxin Liu, Aiwen Jiang, **Juncheng Li,** Kangfu Mei, and Mingwen Wang.

In Proceedings of the Association for the Advance of Artificial Intelligence, **AAAI**, 2021.

Under Review

- **Learning Image Degradation and Reconstruction from Heterogeneous Models for Single Image Denoising**

  Juncheng Li, Qiaosi Yi, Qinyan Dai, Faming Fang, Tieyong Zeng, Guixu Zhang.

  In Proceedings of the Conference on Computer Vision and Pattern Recognition, **CVPR**, 2021.

  Under Review

- **Lightweight Image Super-Resolution with Multi-scale Feature Interaction Network**

  Zhengxue Wang, Guangwei Gao, **Juncheng Li**, Yi Yu, and Huimin Lu.

  In Proceedings of the International Conference on Multimedia and Expo, **ICME**, 2021

Competition Awards

The 1st place in "Example-based RAW to RGB Mapping Challenge", Track 2: Perceptual. **(ICCV-AIM)**, 2019.

The 2nd place in "Example-based RAW to RGB Mapping Challenge", Track 1: Fidelity. **(ICCV-AIM)**, 2019.

The 4th place and "Geek Award" in "Youku Video Enhancement and Super Resolution Challenge" **(4/1514)**, 2019.

The 3rd place in China Multimedia - "Image Dehazing Challenge", **(ChinaMM)**, 2018.

The 6th place and "Honorable Mention Award" in "Image Dehazing Challenge". **(CVPR-NTIRE)**, 2018.

Top 30 Most Potential Developers Prize in the "2018 Computer Vision Most Potential Developers List", 2018.

Ranked 24th in Jingdong Algorithm Challenge - "Potential User Prediction" **(24/4240)**, 2017.

Second Award in National Computer Design Contest, 2014, 2015.

Academic Awards

Outstanding Student, East China Normal University, 2020.

Wisdom Scholarship, East China Normal University, 2020. (1.5%)

Doctoral Research and Innovation Fund Project, East China Normal University, 2020.

Graduate Scholarship, East China Normal University, 2016-2020.

ICCV Travel Award, 2019.

Mingde Scholarship, China, 2015. (3%)

Outstanding Graduates, Jiangxi Normal University, 2016.

Merit Student, Jiangxi Normal University, 2013-2016.

Outstanding Student, Jiangxi Normal University, 2013-2016.

First-class Student Scholarship, Jiangxi Normal University, 2013-2016.

Academic Services

Journal ：

IEEE Transactions on Image Processing (TIP, SCI-1)

IIEEE Transactions on Multimedia (TMM, SCI-1)

Knowledge-Based Systems (KBS, SCI-1)

Information Science (INS, SCI-1)

IEEE Access

IET: Signal Processing、Computer Vision、Image Processing、Electronics Letters

IEEE Signal Processing Letters (SPL)

IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI)

Signal Processing: Image Communication (SPIC)

ACM Transactions on Asian and Low-Resource Language Information Processing

Conference Reviewer:

British Machine Vision Conference (BMVC)

International Conference on Pattern Recognition (ICPR)