Xutong Ren

https://tonghelen.github.io/

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EDUCATION

Carnegie Mellon University, School of Computer Science
Pittsburgh, PA
Master of Science in Machine Learning
Dec. 2020

Peking University, School of Electronics Engineering and Computer Science
Beijing, China
Bachelor of Science in Computer Science
July 2019
- Major GPA: 3.81/4.00. Honorable Degree of Bachelor of Science.

PUBLICATION

[1] Chen Wei, Lingxi Xie, **Xutong Ren**, Yingda Xia, Chi Su, Jiaying Liu, Qi Tian and Alan Yuille, "Iterative Reorganization with Weak Spatial Constraints: Solving Arbitrary Jigsaw Puzzles for Unsupervised Representation Learning," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, June 2019.

[2] **Xutong Ren**, Mading Li, Wen-Huang Cheng and Jiaying Liu, "Joint Enhancement and Denoising Method via Sequential Decomposition," *IEEE International Symposium on Circuits and Systems (ISCAS)*, May 2018, pp. 1–5. (**oral**)

[3] **Xutong Ren**, Lingxi Xie, Chen Wei, Siyuan Qiao, Chi Su, Jiaying Liu, Qi Tian, Elliot Fishman and Alan Yuille, "Generalized Coarse-to-Fine Visual Recognition with Progressive Training," *Arxiv e-print 1811.12047.*

[4] **Xutong Ren**, Wenhan Yang, Wen-Huang Cheng, Jiaying Liu, "LR3M: Robust Low-Light Enhancement via Low-Rank Regularized Retinex Model," submitted to *IEEE Transactions on Image Processing (TIP).*

PATENT

[1] Jiaying Liu, **Xutong Ren**, Mading Li, Zongming Guo, "Method, System and Computer Device of Low-light Enhancement and Denoising," CN201810243551.9

WORK EXPERIENCE

Peking University, Institute of Computer Science and Technology
Beijing, China
Research Assistant
May 2017 – June 2019
- Proposed a joint low-light enhancement and denoising strategy based on a novel sequential Retinex decomposition concept, making simultaneous processing possible and improving visual quality.
- Explored a new issue of text effect assessment for estimating the quality of images generated by text effect transfer models.

Peking University, School of Electronics Engineering and Computer Science
Beijing, China
Teaching Assistant
Sept. 2017 – Jan. 2018
- Taught major compulsory course *Introduction to Computer Systems*.

RESEARCH EXPERIENCE

Google AI Machine Learning Winter Camp
Beijing, China
Machine Learning Engineer
Jan. 2019 – Jan. 2019
- Focused on the domain of image to image translation and realized local face attribute transfer on real human images in an unsupervised way, using cartoon images as a bridge.
- Trained and evaluated five different generative networks and won the *Most Technical Award*.

Johns Hopkins University, Center for Imaging Science
Baltimore, MD
Research Visitor
July 2018 – Sept. 2018
- Focused on visual representation learning in a self-supervised manner and built a recurrent solution to jigsaw puzzles of arbitrary permutations to transfer learned weights.
- Proposed a generalized coarse-to-fine model with progressive training strategy to improve stability and relieve over-fitting, which brings gains of $2\% - 10\%$ in a wide range of visual recognition tasks.

HONORS

- Peking University Award for Academic Excellents — 2018, 2017
- Wang Shengdi Scholarship (top 10%) — 2018
- 8108 College Scholarship (top 10%) — 2017
- The Third Prize of Peking University ACM ICPC — 2017
- Peking University Award for Excellent Volunteers — 2016

SKILLS

- Program Languages: C/C++, Python, MATLAB, Lua;
- Deep Learning Framework: PyTorch, Torch.