

Jun Xu, Ph.D.

Contact Information

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Education

The Hong Kong Polytechnic University, Hong Kong SAR, China

2014.07-2018.06, Ph.D., Department of Computing

- Supervisors: Prof. David Zhang (Chief-Supervisor) and Prof. Lei Zhang (Co-Supervisor)

Nankai University, Tianjin, China

2011.09-2014.06, M.Sc., Information and Probability, School of Mathematics Sciences

- Supervisor: Prof. Jishou Ruan

2007.09-2011.06, B.Sc., Mathematics, School of Mathematics Sciences

- GPA: 87.0/100

Work Experience

Inception Institute of Artificial Intelligence, Abu Dhabi, United Arab Emirates

2018.09-Now, Research Scientist

Simon Fraser University, Burnaby, BC, Canada

2018.06-2018.09, Post-doctoral Fellow, School of Computing Science

- Supervisor: Yasutaka Furukawa

Publication

Jun Xu, Wangpeng An, David Zhang, Lei Zhang. Sparse, Collaborative, or Nonnegative Representation: Which Helps Pattern Classification? *Pattern Recognition*, vol. 88, pp. 679-688, Apr. 2019.

Jun Xu, Lei Zhang, David Zhang. A Trilateral Weighted Sparse Coding Scheme for Real-World Image Denoising. *European Conference on Computer Vision (ECCV)*, 2018.

Jun Xu, Lei Zhang, David Zhang. External Prior Guided Internal Prior Learning for Real-world Noisy Image Denoising. *IEEE Transactions on Image Processing (TIP)*, vol. 27, issue 6, pp. 2996-3010, June 2018.

Jun Xu, Lei Zhang, David Zhang, Xiangchu Feng. Multi-channel Weighted Nuclear Norm Minimization for Real Color Image Denoising. *IEEE International Conference on Computer Vision (ICCV)*, 2017.

Jun Xu, Lei Zhang, Wangmeng Zuo, David Zhang, Xiangchu Feng. Patch Group Based Nonlocal Self-Similarity Prior Learning for Image Denoising. *IEEE International Conference on Computer Vision (ICCV)*, 2015.

Jun Xu, Kui Xu, Ke Chen, Jishou Ruan. Reweighted Sparse Subspace Clustering. *Computer Vision and Image Understanding (CVIU)*, vol. 138, pp. 25-37, Sep. 2015.

Jun Xu, Dongwei Ren, Lei Zhang, David Zhang. Patch Group based Bayesian Learning for Blind Image Denoising. *Asian Conference on Computer Vision (ACCV) Workshop*, 2016.

Zhetong Liang, **Jun Xu**, David Zhang, Zisheng Cao, Lei Zhang. A Hybrid ℓ_1 - ℓ_0 Layer Decomposition Model for Tone Mapping. *IEEE Computer Vision and Pattern Recognition (CVPR)*, 2018.

Wangpeng An, Haoqian Wang, Qingyun Sun, **Jun Xu**, Lei Zhang, Qionghai Dai. A PID Controller Approach for Stochastic Optimization of Deep Networks. IEEE Computer Vision and Pattern Recognition (**CVPR**), 2018.

Dongwei Ren, Wangmeng Zuo, David Zhang, **Jun Xu**, Lei Zhang. Partial Deconvolution with Inaccurate Blur Kernel. IEEE Transactions on Image Processing (**TIP**), vol. 27, issue 1, pp. 511-524, Jan. 2018.

Zhou Xu, Shuai Li, Xiapu Luo, Jin Liu, Tao Zhang, Yutian Tang, **Jun Xu**, Peipei Yuan, Jacky Keung. TSTSS: A Two-Stage Training Subset Selection Framework for Cross Version Defect Prediction. Journal of Systems and Software, in press, 2019.

Zhou Xu, Shuai Li, Yutian Tang, Xiapu Luo, Tao Zhang, Jin Liu, **Jun Xu**. Cross Version Defect Prediction with Representative Data via Sparse Subset Selection. International Conference on Program Comprehension (**ICPC**), 2018.

Kui Xu, Ke Chen, **Jun Xu**, Jialin Tian, Hao Liu, Yufan Wang. CGDNA: An Ensemble De Novo Genome Assembly Algorithm Based on Clustering Graph. Computer Science, vol. 42, issue 9, pp. 235-239, 245, 2015.

Yuanyuan Zhu, Xiaohe Wu, **Jun Xu**, David Zhang, Wangmeng Zuo. Radius-margin based support vector machine with LogDet regularization. International Conference on Machine Learning and Cybernetics (ICMLC), pp. 277-282, 2015.

Yanping Zhang, **Jun Xu**, Wei Zheng, Chen Zhang, Xingye Qiu, Ke Chen, Jishou Ruan. newDNA-Prot: Prediction of DNA-binding proteins by employing support vector machine and a comprehensive sequence representation. Computational Biology and Chemistry, vol. 52, pp. 51-59, Oct. 2014.

Yajun Sheng, Xingye Qiu, Chen Zhang, **Jun Xu**, Yanping Zhang, Wei Zheng, and Ke Chen. Quad-PRE: A Hybrid Method to Predict Protein Quaternary Structure Attributes. Computational and Mathematical Methods in Medicine, vol. 2014, Article ID 715494, 9 pages, 2014.

Manuscript

Jun Xu, Mengyang Yu, Ling Shao, Wangmeng Zuo, Deyu Meng, Lei Zhang, David Zhang. Simplex Representation for Subspace Clustering. <https://arxiv.org/abs/1807.09930>.

Jun Xu, Hui Li, Zhetong Liang, David Zhang, Lei Zhang. Real-world Noisy Image Denoising: A New Benchmark. <https://arxiv.org/abs/1804.02603>.

Haoqian Wang, Zhiwei Xu, **Jun Xu**, Wangpeng An, Yongbing Zhang, Lei Zhang. Semi-supervised Self-growing Generative Adversarial Networks for Image Recognition. Submitted to Pattern Recognition.

PC Member / Reviewer

Conference:

- ICCV 2019
- CVPR 2019
- IJCAI 2019
- MICCAI 2019
- ACCV 2018/2016
- CCML 2017

Journal:

- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Cybernetics (TCYB)
- IEEE Transactions on Multimedia (TMM)
- IEEE Access
- SIAM Journal on Imaging Sciences (SIIMS)
- Pattern Recognition (PR)
- Image and Vision Computing (IVC)
- IET Image Processing
- IET Computer Vision
- International Journal of Image and Graphics (IJIG)
- International Journal of Wavelets, Multiresolution and Information Processing
- Journal of Electronic Imaging (JEI)
- Journal of Visual Communication and Image Representation (JVCIR)
- Journal of the Franklin Institute
- Journal of Real-Time Image Processing
- Biophotonics
- Neurocomputing
- PLOS One
- Engineering Computations
- The Visual Computer

Honors and Awards

- Excellent Master Graduate, School of Mathematics Sciences, Nankai University, 2014
- National Scholarship for Outstanding Master Student, Ministry of Education, China, 2013