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CONTACT INFORMATION	427 Richard Hall, 360 Huntington Ave., Northeastern University, Boston, MA, U.S. Homepage: <a href="http://yulunzhang.com/">http://yulunzhang.com/</a>	yulun100@gmail.com Tel: +1-(617)849-0935 Google Scholar
RESEARCH INTERESTS	Machine Learning: sparse/collaborative representation, dictionary learning, deep learning. Computer Vision: image processing (image restoration/generation)	
EDUCATION	<b>Northeastern University</b> , Boston, USA	Sep 2017 – Now
	Ph.D., Department of ECE, College of Engineering <ul style="list-style-type: none"> <li>• Major in Computer Engineering</li> <li>• Advisor: <i>Prof. Yun Raymond Fu</i></li> </ul>	
	<b>Tsinghua University</b> , Beijing, China	Sep 2014 – Jul 2017
	M.E., Department of Automation <ul style="list-style-type: none"> <li>• Major in Control Engineering</li> <li>• Advisor: <i>Prof. Yongbing Zhang</i></li> <li>• Overall GPA: 3.73/4.0, Major GPA: 3.75/4.0</li> </ul>	
	<b>The University of Sydney</b> , Sydney, Australia	Jan 2016 – Jul 2016
	Visiting Student, School of Electrical and Information Engineering <ul style="list-style-type: none"> <li>• Advisor: <i>Prof. Dong Xu</i> and <i>Dr. Wen Li</i></li> <li>• Research on metric learning with privileged information for visual recognition.</li> </ul>	
	<b>Xidian University</b> , Xi'an, China	Sep 2009 – Jul 2013
	B.S., School of Electronic Engineering <ul style="list-style-type: none"> <li>• Major in Intelligence Science and Technology</li> <li>• Overall GPA: 3.36/4.0, Major GPA: 3.63/4.0</li> </ul>	
RESEARCH EXPERIENCE	<b>SMILE lab, Northeastern University, Boston, USA</b>	Sep 2017 – Now
	Position: Research Assistant	Supervisor: <i>Prof. Yun Raymond Fu</i>
	Projects: Deep learning for image restoration and generation.	
	<b>Adobe Research, San Jose, USA</b>	May 2018 – Aug 2018
	Position: Deep Learning Research Intern	Mentor: <i>Dr. Chen Fang</i>
	Projects: Style transfer.	
	<b>Tsinghua University, China</b>	Mar 2014 – Jul 2017
	Position: Research Assistant	Supervisor: <i>Prof. Yongbing Zhang</i>
	Projects: Image super-resolution and compression artifact removal via sparse/collaborative representation and deep learning.	
	<b>SIAT, Chinese Academy of Sciences, China</b>	Oct 2016 – Jun 2017
	Position: Research Assistant	Supervisor: <i>Prof. Yu Qiao</i>
	Projects: Generative adversarial networks (GAN) for image restoration/generation.	
	<b>Nanyang Technological University, Singapore</b>	Nov 2015 – Jan 2016
	Position: Project Officer	Supervisor: <i>Dr. Li Niu</i> and <i>Prof. Dong Xu</i>
	Projects: Exploiting privileged information from web data for visual recognition.	
	<b>Xidian University, China</b>	Jun – Aug 2012, Dec 2012 – Jun 2013
	Position: Research Assistant	Supervisor: <i>Prof. Shuyuan Yang</i>
	Projects: 1. Learning efficient features for action recognition in video domain. 2. Depth extraction from natural images using optical flow.	

JOURNAL  
PUBLICATIONS

(\* means corresponding author and Prof. Yongbing Zhang is my master supervisor.)

1. Yongbing Zhang, Yulun Zhang\*, Jian Zhang, and Qionghai Dai, “CCR: Clustering and Collaborative Representation for Fast Single Image Super-Resolution,” *IEEE Trans. Multimedia (TMM)*, vol. 18, no. 3, pp. 405–417, Mar. 2016.
2. Yongbing Zhang, Yulun Zhang\*, Jian Zhang, Dong Xu, Yun Fu, Xiangyang Ji, and Qionghai Dai, “Collaborative Representation Cascade for Single Image Super-Resolution,” *IEEE Trans. Syst., Man, Cybern., Syst. (TSMC)*, 2017.

CONFERENCE  
PUBLICATIONS

1. Yulun Zhang, Yapeng Tian, Yu Kong, Bineng Zhong, and Yun Fu, “Residual Dense Network for Image Super-Resolution,” *IEEE Conf. Comput. Vis. Pattern Recognit. (CVPR 2018)*
2. Yulun Zhang, Yongbing Zhang, Jian Zhang, Haoqian Wang, and Qionghai Dai, “Adaptive Local Nonparametric Regression for Fast Single Image Super-Resolution,” *IEEE International Conference on Visual Communications and Image Processing (VCIP)*, 2015. ( **Best Student Paper Award**, 1 out of over **313** submissions.)
3. Yulun Zhang, Kaiyu Gu, Yongbing Zhang, Jian Zhang, and Qionghai Dai, “Image Super-Resolution Based on Dictionary Learning and Anchored Neighborhood Regression with Mutual Incoherence,” *IEEE International Conference on Image Processing (ICIP)*, 2015.
4. Yulun Zhang, Yongbing Zhang, Jian Zhang, Haoqian Wang, and Qionghai Dai, “Single Image Super-Resolution via Iterative Collaborative Representation,” *Pacific-Rim Conference on Multimedia (PCM)*, 2015.
5. Yulun Zhang, Yongbing Zhang, and Qionghai Dai, “Single Depth Image Super-Resolution via A Dual Sparsity Model,” *IEEE International Conference on Multimedia and Expo (ICME) Workshop on Hot Topics in 3D (Hot3D)*, 2015.
6. Tao Shen, Yulun Zhang, Yongbing Zhang, Xingzheng Wang, Haoqian Wang, and Qionghai Dai, “Decompressed Video Enhancement via Accurate Regression Prior,” *IEEE International Conference on Visual Communications and Image Processing (VCIP)*, 2016.
7. Yihui Feng, Yongbing Zhang, Yulun Zhang, Tao Shen, and Qionghai Dai, “Decompressed Video Enhancement via Accurate Regression Prior,” *IEEE International Conference on Visual Communications and Image Processing (VCIP)*, 2016.
8. Radu Timofte, ..., Yulun Zhang, ..., et al., “NTIRE 2017 Challenge on Single Image Super-Resolution: Methods and Results,” *IEEE CVPR New Trends in Image Restoration and Enhancement workshop and challenge on image super-resolution (CVPR NTIRE)*, 2017. (Our team ranked 2<sup>nd</sup> place.)
9. Wangpeng An, Haoqian Wang, Yulun Zhang, and Qionghai Dai, “Exponential Decay Sine Wave Learning Rate for Fast Deep Neural Network Training,” *IEEE International Conference on Visual Communications and Image Processing (VCIP)*, 2017.

HONORS AND  
AWARDS

- Dean’s Fellowship in Northeastern University, USA, 2017
- Shenzhen Universiade International Scholarship, China, 2017
- Excellent Graduate of Beijing, China 2017
- Excellent Master Thesis of Tsinghua University, 2017
- National Scholarship (Ministry of Education, China, Top 2%), 2016
- **Best Student Paper Award** at IEEE VCIP, 2015
- Jingzhi Research Award in Tsinghua University (Top 5%), 2015
- Second Prize Scholarship of Xidian University, 2011, 2012

- Advanced Individual of Social Work, 2011
- Third Prize Scholarship of Xidian University, 2010
- Advanced Individual of Civilized Dormitory Contribution, 2010
- Excellent Student in Xidian University (Top 5%), 2009

PROFESSIONAL  
ACTIVITIES

Journal Reviewer

- IEEE Trans. Image Process. (**TIP**)
- IEEE Trans. Circuits Syst. Video Technol. (**TCSVT**)
- IEEE Trans. Neural Netw. and Learn. Syst. (**TNNLS**)

Oral Presentations or Posters at Conferences

- IEEE Int. Conf. on Visual Communications and Image Processing, Singapore Dec 2015
- IEEE International Conference on Image Processing, Quebec, Canada Sep 2015
- Pacific-Rim Conference on Multimedia, Gwangju, Korea Sep 2015
- IEEE International Conference on Multimedia and Expo, Torino, Italy Jun 2015

Memberships

- Student Member, IEEE
- Student Member, CCF

TEACHING

- Teaching Assistant, Modern Signal Processing, Tsinghua University Fall 2015

SKILLS

- Programming: Matlab, C/C++, Python, Lua, L<sup>A</sup>T<sub>E</sub>X, Visual Studio, OpenCV, Linux.
- Deep learning tools: PyTorch, Caffe, Torch, Keras, MatConvNet.