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| CONTACT INFORMATION | 427 Richard Hall, 360 Huntington Ave.,<br>Northeastern University, Boston, MA, U.S.<br>Homepage: <a href="http://yulunzhang.com">http://yulunzhang.com</a>  | <a href="mailto:yulun100@gmail.com">yulun100@gmail.com</a><br>Tel: +1-(617)849-0935<br>Google Scholar |
| RESEARCH INTERESTS  | Machine Learning: deep learning.<br>Computer Vision: image/video restoration, style transfer  |   |
| 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> <li>• Overall GPA: 3.92/4.0</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 Dr. <i>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  |
|                     | Research Assistant  | Supervisor: <i>Prof. Yun Raymond Fu</i>   |
|                     | Projects: Deep learning for image restoration and generation.   |   |
|                     | <b>Adobe Research, San Jose, USA</b>  | Jun 2019 – Aug 2019   |
|                     | Research Intern Mentors: <i>Zhifei Zhang</i> , <i>Stephen DiVerdi</i> , <i>Zhaowen Wang</i> , <i>Jose Echevarria</i><br>Projects: Painting super-resolution.  |   |
|                     | <b>Adobe Research, San Jose, USA</b>  | May 2018 – Aug 2018   |
|                     | Research Intern Mentors: <i>Chen Fang</i> , <i>Zhaowen Wang</i> , <i>Yilin Wang</i> , <i>Jimei Yang</i> , <i>Zhe Lin</i><br>Projects: Style transfer.   |   |
|                     | <b>Tsinghua University, China</b>   | Mar 2014 – Jul 2017   |
|                     | 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   |
|                     | 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   |
|                     | Project Officer   | Supervisor: <i>Dr. Li Niu</i> and <i>Prof. Dong Xu</i>  |
|                     | Projects: Exploiting privileged information from web data for visual recognition.   |   |

• **Journal Papers**

1. Xiaole Zhao, **Yulun Zhang**, Tao Zhang, and Xueming Zou, “Channel Splitting Network for Single MR Image Super-Resolution”, *IEEE Transactions on Image Processing (TIP)*, 2019
2. Bineng Zhong, Bing Bai, Jun Li, **Yulun Zhang**, and Yun Fu, “Hierarchical Tracking by Reinforcement Learning based Searching and Coarse-to-fine Verifying”, *IEEE Transactions on Image Processing (TIP)*, 2019.
3. Qinqin Zhou, Bineng Zhong, **Yulun Zhang**, Jun Li, and Yun Fu, “Deep Alignment Network Based Multi-person Tracking with Occlusion and Motion Reasoning”, *IEEE Transactions Multimedia (TMM)*, 2018.
4. Yongbing Zhang, **Yulun Zhang\***, Jian Zhang, Dong Xu, Yun Fu, Xiangyang Ji, and Qionghai Dai, “Collaborative Representation Cascade for Single Image Super-Resolution”, *IEEE Transactions on Systems, Man, and Cybernetics: Systems (TSMC)*, 2017.
5. Yongbing Zhang, **Yulun Zhang\***, Jian Zhang, and Qionghai Dai, “CCR: Clustering and Collaborative Representation for Fast Single Image Super-Resolution”, *IEEE Transactions Multimedia (TMM)*, vol. 18, no. 3, pp. 405–417, Mar. 2016.

• **Conference Papers**

1. Yu Yin, Joseph Robinson, **Yulun Zhang**, and Yun Fu, “Joint Super-Resolution and Alignment of Tiny Faces”, *The AAAI Conference on Artificial Intelligence (AAAI)*, 2020. (Poster, 20.6%)
2. **Yulun Zhang**, Chen Fang, Yilin Wang, Zhaowen Wang, Zhe Lin, Yun Fu, and Jimei Yang, “Multimodal Style Transfer via Graph Cuts”, *IEEE International Conference on Computer Vision (ICCV)*, 2019. (Poster, 25%)
3. Kunpeng Li, **Yulun Zhang**, Kai Li, Yuanyuan Li, and Yun Fu, “Visual Semantic Reasoning for Image-Text Matching”, *IEEE International Conference on Computer Vision (ICCV)*, 2019. (Oral, 4.3%)
4. Kunpeng Li, **Yulun Zhang**, Kai Li, Yuanyuan Li, and Yun Fu, “Attention Bridging Network for Knowledge Transfer”, *IEEE International Conference on Computer Vision (ICCV)*, 2019. (Poster, 25%)
5. Qinqin Zhou, Bineng Zhong, Xiangyuan Lan, Gan Sun, **Yulun Zhang**, Mengran Gou, “LRDNN: Local-refining based Deep Neural Network for Person Re-Identification with Attribute Discerning”, *International Joint Conference on Artificial Intelligence (IJCAI)*, 2019. (Oral, 13.7%)
6. **Yulun Zhang**, Kunpeng Li, Kai Li, Bineng Zhong, and Yun Fu, “Residual Non-local Attention Networks for Image Restoration”, *International Conference on Learning Representations (ICLR)*, 2019. (Poster, 31%)
7. **Yulun Zhang**, Kunpeng Li, Kai Li, Lichen Wang, Bineng Zhong, and Yun Fu, “Image Super-Resolution Using Very Deep Residual Channel Attention Networks”, *European Conference on Computer Vision (ECCV)*, 2018. (Poster, 29.4%)
8. **Yulun Zhang**, Yapeng Tian, Yu Kong, Bineng Zhong, and Yun Fu, “Residual Dense Network for Image Super-Resolution”, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018. (Spotlight, 6.6%)

9. Kai Li, Zhengming Ding, Kunpeng Li, **Yulun Zhang**, and Yun Fu, “Support Neighbor Loss for Person Re-Identification”, *ACM International Conference on Multimedia (ACM MM)*, 2018. (Poster, 27 %)
10. **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.)

#### • Workshop Papers

1. Can Qin, Lichen Wang, **Yulun Zhang**, and Yun Fu, “Generatively Inferential Co-Training for Unsupervised Domain Adaptation”, *IEEE ICCV Real-World Recognition from Low-Quality Images and Videos (RLQ) workshop (ICCV Workshop)*, 2019. (**Best Paper Award**)
2. 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 Workshop)*, 2017. (Our team ranked 2<sup>nd</sup> place.)

#### • Preprints

1. **Yulun Zhang**, Yapeng Tian, Yu Kong, Bineng Zhong, and Yun Fu, “Residual Dense Network for Image Restoration”, *arXiv preprint arXiv:1812.10477*, 2018
2. **Yulun Zhang**, Zhifei Zhang, Stephen DiVerdi, Zhaowen Wang, Jose Echevarria, and Yun Fu, “Texture Hallucination for Large-Scale Painting Super-Resolution”, *arXiv preprint arXiv:1912.00515*, 2019
3. Yapeng Tian, **Yulun Zhang**, Yun Fu, and Chenliang Xu, “TDAN: Temporally Deformable Alignment Network for Video Super-Resolution”, *arXiv preprint arXiv:1812.02898*, 2018

#### HONORS AND AWARDS

- **Best Paper Award**, RLQ workshop, IEEE ICCV, 2019
- ICCV Travel Award, 2019
- ICLR Travel Award, 2019
- PhD Network Travel Grant, Northeastern University, USA, 2018, 2019
- Dean’s Fellowship in Northeastern University, USA, 2017
- Shenzhen Universiade International Scholarship, China, 2017
- Excellent Graduate of Beijing, China, 2017
- Excellent Graduate of Department of Automation, Tsinghua University, 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
- Third Prize Scholarship of Xidian University, 2010

#### PROFESSIONAL ACTIVITIES

- Reviewer
- Conferences: CVPR, ICCV, ECCV, AACL, IJCAI
  - Journals: TPAMI, TIP, TCSVT, TMM, TNNLS, TMI, TCI, CVIU

#### TEACHING

- Part-Time Instructor, Data Visualization, Northeastern University Spring 2020
- Teaching Assistant, Computer Vision, Northeastern University Fall 2018
- Teaching Assistant, Modern Signal Processing, Tsinghua University Fall 2015

## SKILLS

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