

# YIFAN JIANG

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## EDUCATION

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**The University of Texas at Austin**, Austin, USA 2020 – Present

*Ph.D.* in Electrical and Computer Engineering<sup>1</sup>

Advisor: [Prof. Zhangyang \(Atlas\) Wang](#)

Research Interests: Neural Rendering, Generative Model, Computational Photography

**Huazhong University of Science and Technology**, Wuhan, China 2015 – 2019

*B.E.* in Electronic Information Engineering

## PUBLICATIONS

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(\* indicates equal contribution)

- Y. Jiang\***, D. Xu\*, P. Wang, Z. Fan, H. Shi, and Z. Wang. “SinNeRF: Training Neural Radiance Fields on Complex Scenes from a Single Image”, European Conference on Computer Vision (**ECCV**), 2022.
- Y. Jiang\***, Z. Fan\*, P. Wang\*, X. Gong, D. Xu, and Z. Wang. “Unified Implicit Neural Stylization”, European Conference on Computer Vision (**ECCV**), 2022.
- Y. Jiang**, B. Wronski, B. Mildenhall, J. T. Barron, Z. Wang, and T. Xue. “Fast and High-Quality Image Denoising via Malleable Convolutions”, European Conference on Computer Vision (**ECCV**), 2022.
- Y. Jiang**, X. Gong, Junru Wu, H. Shi, Z. Yan, and Z. Wang, “AutoX3D: Searching Ultra-Efficient Architecture for Video Understanding”, Winter Conference on Applications of Computer Vision (**WACV**) 2022.
- Y. Jiang**, S. Chang, and Z. Wang, “TransGAN: Two Pure Transformers can Make One Strong GAN and That Can Scale Up”, Advances in Neural Information Processing Systems (**NeurIPS**), 2021.
- Y. Jiang**, H. Zhang, J. Zhang, Y. Wang, Z. Lin, K. Sunkavalli, S. Chen, S. Amirghodsi, S. Kong, and Z. Wang, “SSH: A Self-supervised Framework for Image Harmonization”, International Conference on Computer Vision (**ICCV**), 2021.
- Y. Jiang**, X. Gong, D. Liu, Y. Cheng, C. Fang, X. Shen, J. Yang, P. Zhou, and Z. Wang, “EnlightenGAN: Deep Light Enhancement without Paired Supervision”, Transaction on Image Processing (**TIP**)
- Z. Fan, P. Wang, **Y. Jiang**, X. Gong, D. Xu, and Z. Wang, “NeRF-SOS: Any-View Self-supervised Object Segmentation from Complex Real-World Scenes”, International Conference on Learning Representation (**ICLR**), 2023
- Z. Chen, **Y. Jiang**, D. Liu, and Z. Wang, “CERL: A Unified Optimization Framework for Light Enhancement with Realistic Noise”, Transaction on Image Processing (**TIP**)
- D. Xu\*, P. Wang\*, **Y. Jiang**, Z. Fan, and Z. Wang, “Signal Processing for Implicit Neural Representations”, Advances in Neural Information Processing Systems (**NeurIPS**), 2022.
- D. Xu, H. Poghosyan, S. Navasardyan, **Y. Jiang**, H. Shi, and Z. Wang, “ReCoRo: Region-Controllable Robust Light Enhancement by User-Specified Imprecise Masks”, ACM Multimedia (**MM**), 2022
- B. Pan, R. Panda, **Y. Jiang**, Z. Wang, R. Feris, and A. Oliva, “IA-RED2: Interpretability Aware Redundancy Reduction for Vision Transformers”, Advances in Neural Information Processing Systems (**NeurIPS**), 2021.
- Y. Fu, Z. Yu, Y. Zhang, **Y. Jiang**, C. Li, Y. Liang, M. Jiang, Z. Wang, and Y. Lin, “InstantNet: Automated Generation and Deployment of Instantaneously Switchable Precision Networks”, Design Automation Conference (**DAC**), 2021.
- T. Meng\*, X. Chen\*, **Y. Jiang**, and Z. Wang, “A Design Space Study for LISTA and Beyond”, International Conference on Learning Representations (**ICLR**), 2021.
- X. Gong, S. Chang, **Y. Jiang**, and Z. Wang. “AutoGAN: Neural Architecture Search for Generative Adversarial Networks”, International Conference on Computer Vision (**ICCV**), 2019.

## INTERNSHIP EXPERIENCE

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**Adobe**, San Jose, USA May, 2022 – Present

Research Intern with *Marc Levoy's Team*, Adviser: *Dr. Zhihao Xia, Dr. Cecilia Zhang, Dr. Jiawen Chen.*

- Working on monocular video depth estimation

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<sup>1</sup>Studied at Texas A&M University from Aug. 2019 to Aug. 2020; then transferred with my advisor to UT Austin

**Google Research** , Mountain View, USA

May. 2021 – May. 2022

*Research Intern with GCam, Adviser: Dr. Tianfan Xue, Bart Wroński, Dr. Ben Mildenhall, Dr. Jon Barron.*

- Developed a fast denoising network by predicting spatially-varying kernels at low resolution and using a fast fused op to jointly upsample and apply these kernels at full resolution. The resultant paper was accepted by ECCV'2022
- Designed a high-fidelity neural radiance field that can render high-quality novel view images.

**Adobe**, San Jose, USA

May. 2020 – Nov. 2020

*Research Intern with Applied Research Team (ART), Adviser: Dr. He Zhang and Dr. Jianming Zhang.*

- Developed a self-supervised method for image harmonization that does not require human annotation labels. The resultant paper was accepted by ICCV'2021

**Bytedance AI Lab**, Beijing, China

Jan. 2019 – Aug. 2019

*Research Intern with US CV Lab, Adviser: Dr. Jianchao Yang and Dr. Xiaohui Shen and Dr. Ding Liu.*

- Designed a jointly image denoising and low-light enhancement algorithm, which was integrated in the selfie camera app **FaceU**.

## MEDIA HIGHLIGHT

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- TransGAN was covered by [Quanta Magazine](#) (Mar. 2022) and was highlighted by [Top AI influencers](#) and high-profile [YouTubers](#), as well as considered as [the most influential new paper of the month \(Feb. 2021\)](#).
- AutoGAN was covered by [Synched AI Technology & Industry Review](#) (Aug. 2019), and also featured on [Towards Data Science](#) (Sep. 2019) and [Analytics Magazine](#) (Aug. 2019), etc.

## COMMUNITY SERVICES

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- Reviewer for: CVPR'2021-2022, ICCV'2021, ECCV'2022, ICML'2022, NeurIPS'2022, ICLR'2023, Siggraph Aisa'2022, Siggraph'2022, WACV'2022, Transaction on Image Processing (TIP), International Journal of Computer Vision (IJCV), NeuroComputing, IEEE Robotics and Automation Letters (RA-L)
- Workshop Organizer for: [ECCV RLQ-TOD Workshop 2020](#)

## INVITED TALKS

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- “Learning to Enhance Low-light Images without Paired Supervision” at [\[IEEE SPS Webinar\]](#), after my TIP work EnlightenGAN was highlighted as one of SPS's top-25 most downloaded articles on IEEE Xplore®, 2021-2022.
- “Fast and High-Quality Image Denoising via Malleable Convolutions” at Adobe, [Marc Levoy's team](#).
- “Vision Transformer for Image Generation, Editing, and Processing” at Google Research, GCam.
- “TransGAN: Two Transformers Can Make One Strong GAN” at [\[cai-workshop\]](#), [\[SHI Lab @University of Oregon\]](#)

## AWARDS

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- 2023 **Apple PhD Scholar in AI/ML**