

Ziyu Wan

Curriculum Vitae

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Research Statement

My research interests mainly lie in processing and generation of image, video and 3D data. With various powerful generative models (like GANs, auto-regressive models and diffusion models), we now have chances to produce very realistic and diversified contents. Recently we are also fortunate to witness the remarkable success of neural implicit representations of different domains (2D, 3D or complex scenes). It is very exciting to see what will happen while we harness the best of both worlds. Maybe one day we could just generate a realistic 3D world as easy as falling off a log.

Education

- 2019–Now : **Ph.D. student**, *City University of Hong Kong*.
Department of Computer Science, advised by Jing Liao
- 2018–2019 : **Master of Science (Distinction)**, *City University of Hong Kong*.
Department of Computer Science, advised by Jing Liao
- 2014–2018 : **Bachelor of Engineering**, *Zhengzhou University*.
Department of Computer Science

Work Experience

- 2022 Summer **Facebook Reality Labs**.
Research Scientist Intern. Mentor: Rakesh Ranjan and Christian Richardt
- 2020 Winter **Visual Computing Center, Tencent AI LAB**.
Research Intern. Mentor: Haozhi Huang, Xuan Wang and Wei Liu
- 2019 Spring **Visual Computing Group, Microsoft Research**.
Research Intern. Mentor: Dong Chen and Bo Zhang
- 2018 Summer **National Laboratory of Pattern Recognition, Chinese Academy of Sciences**.
Research Intern. Mentor: Junge Zhang and Yan Li
- 2017 Summer **Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences**.
Research Assistant. Mentor: Min Yang

Publications

- ★ **Bringing Old Films Back to Life**.
[Ziyu Wan](#), Bo Zhang, Dongdong Chen, Jing Liao
[CVPR 2022](#)
- ★ **Old Photo Restoration via Deep Latent Space Translation**.
[Ziyu Wan](#), Bo Zhang, Dongdong Chen, Pan Zhang, Dong Chen, Jing Liao, Fang Wen
[TPAMI 2022 \(10k+ Stars\)](#)
- ★ **Adaptive Joint Optimization for 3D Reconstruction with Differentiable Rendering**.
Jingbo Zhang, [Ziyu Wan](#), Jing Liao
[TVCG 2022](#)
- ★ **High-Fidelity Pluralistic Image Completion with Transformers**.
[Ziyu Wan](#), Jingbo Zhang, Dongdong Chen, Jing Liao
[ICCV 2021](#)

- ★ **Visual Structure Constraint for Transductive Zero-Shot Learning in the Wild.**
Ziyu Wan, Dongdong Chen, Jing Liao
[IJCV 2021](#)
- ★ **PD-GAN: Probabilistic Diverse GAN for Image Inpainting.**
Hongyu Liu, Ziyu Wan, Wei Huang, Yibing Song, Xintong Han, Jing Liao
[CVPR 2021](#)
- ★ **DeFLOCNet: Deep Image Editing via Flexible Low-level Controls.**
Hongyu Liu, Ziyu Wan, Wei Huang, Yibing Song, Xintong Han, Jing Liao, Bin Jiang, Wei Liu
[CVPR 2021](#)
- ★ **Meta-PU: An Arbitrary-Scale Upsampling Network for Point Cloud.**
Shuquan Ye, Dongdong Chen, Songfang Han, Ziyu Wan, Jing Liao
[TVCG 2021](#)
- ★ **Bringing Old Photos Back to Life.**
Ziyu Wan, Bo Zhang, Dongdong Chen, Pan Zhang, Dong Chen, Jing Liao, Fang Wen
[CVPR 2020 \(Oral Presentation\)](#)
- ★ **Transductive Zero-Shot Learning with Visual Structure Constraint.**
Ziyu Wan, Dongdong Chen, Yan Li, Xingguang Yan, Junge Zhang, Yizhou Yu, Jing Liao
[NeurIPS 2019](#)
- ★ **Transductive Zero-Shot Learning via Visual Center Adaptation.**
Ziyu Wan, Yan Li, Min Yang, Junge Zhang
[AAAI 2019 \(Abstract\)](#)

Awards

- 2019 **Postgraduate Research Scholarship**, *City University of Hong Kong.*
- 2019 **Excellent Award, Stars of Tomorrow**, *Microsoft Research.*
- 2019 **Tencent Rhino-Bird Elite Training Program.**
- 2019 **NeurIPS Travel Award.**
- 2019 **AAAI Student Scholarship.**
- 2018 **The First Class Scholarship**, *Zhengzhou University.*
- 2016 **ACM-ICPC EC-Final, Bronze Medal.**

Academic Services

- Senior PC [IJCAI 2021.](#)
- Conference Reviewers [SIGGRAPH 2022, ICML 2022, CVPR 2022, AAI 2022, ICLR 2022, NeurIPS 2021, ICCV 2021, ICML 2021, CVPR 2021, NeurIPS 2020, Pacific Graphics 2020.](#)
- Journal [TVCG, TVCJ, MVAP.](#)

Academic Talks

- 2021 - June **Image Completion by Transformers.**
Adobe Research, Online
- 2020 - June **Old Photo Restoration by Deep Learning.**
[CVPR 2020](#), Online