YUE WU

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https://scholar.google.com/citations?user=1xTR6qoAAAAJhl=en

EDUCATION

Hong Kong University of Science and Technology *Aug. 2018 - Jun. 2023(expected)*
Ph.D. Student
Department of Computer Science and Engineering
supervised by **Prof. Qifeng Chen**

Wuhan University *Aug. 2014 - Jun. 2018*
B.E. Degree **GPA**:3.87/4.0(Top 4%)
Department of Computer Science
supervised by **Prof. Zhenzhong Chen**.

WORK EXPERIENCE

Microsoft Research Asia, Beijing. Jan. 2022 - now

Research Intern in **Visual Computing** Group.

[Mentor: Dr. Xin Tong , Dr. Jiaolong Yang, Dr. Fangyun Wei]

I am working on 3D-aware controllable generative models for avatar generation.

AniFaceGAN: Animatable 3D-Aware Face Image Generation for Video Avatars, NeurIPS 2022(Spotlight), working with Yu Deng, Jiaolong Yang, Fangyun Wei, Qifeng Chen, Xin Tong. [Paper] [Project]

- We decompose the 3D representation of the 3D-aware GAN into a template field and a deformation field, where the former represents different identities with a canonical expression, and the latter characterizes expression variations of each identity.
- To achieve meaningful control over facial expressions via deformation, we propose a 3D-level imitative learning scheme between the generator and a parametric 3D face model during adversarial training of the 3D-aware GAN.
- our method achieve high-quality animatable face image generation with strong visual 3D consistency, even though trained with only unstructured 2D images.

Sensetime, Beijing. Research Intern. Jul. 2017 - Dec. 2017

[Mentor: Dr. Wentao Liu, Dr. Chen Qian]

I participate in the ICCV PoseTrack Challenge and I'm responsible for research about human pose estimation using bottom-up method. Our team won 2nd places. [PDF] [Video]

PUBLICATIONS

* means equal contribution.

Publications

Yue Wu, Yu Deng, Jiaolong Yang, Fangyun Wei, Qifeng Chen, Xin Tong. AniFaceGAN: Animatable 3D-Aware Face Image Generation for Video Avatars. In Neural Information Processing Systems(NeurIPS), 2022, **(Spotlight)**. [Paper] [Project]

Yue Wu, Qiang Wen and Qifeng Chen. Optimizing Video Prediction via Video Frame Interpolation. In IEEE Conference on Computer Vision and Pattern Recognition(CVPR), 2022. [PDF] [Project] [Video]

Yue Wu*, Guotao Meng* and Qifeng Chen. Embedding Novel Views in a Single JPEG Image. In International Conference on Computer Vision(ICCV), 2021. [PDF] [Project] [Video]

Yue Wu, Rongrong Gao, Jaesik Park and Qifeng Chen. Future Video Synthesis with Object Motion Prediction. In Computer Vision and Pattern Recognition Conference(CVPR), 2020. [PDF] [Code] [Video]

Qiang Wen, **Yue Wu**, Qifeng Chen. Video Waterdrop Removal via Spatio-Temporal Fusion in Driving Scenes. In IEEE International Conference on Robotics and Automation(ICRA), 2023.

Guotao Meng, **Yue Wu**, Sijin Li and Qifeng Chen. Video Super-Resolution with Long-Term Self-Exemplars. In IEEE International Conference on Robotics and Automation(ICRA), 2023. [PDF]

Jin, Sheng, Xujie Ma, Zhipeng Han, **Yue Wu**, Wei Yang, Wentao Liu, Chen Qian and Wanli Ouyang. Towards Multi-Person Pose Tracking: Bottom-up and Top-down Methods. In ICCV PoseTrack Workshop, 2017. [PDF] [Video]

Yue Wu, Zhenzhong Chen. Saliency map generation based on saccade target theory. In IEEE International Conference on Multimedia and Expo (ICME), 2017. [PDF]

Preprints

Chenyang Lei*, **Yue Wu***, Qifeng Chen. Towards Photorealistic Colorization by Imagination, in submission, 2021. [PDF]

AWARDS

HKUST Postgraduate Scholarships	2018
Best Head Movement Prediction Student Prize ICME Grand Challenge Salient360!	2017
2nd places of the ICCV PoseTrack Challenge	2017
Meritorious Winner, Mathematical Contest in Modeling/Interdisciplinary Contest in Modeling	2017
National Scholarship	2015
First-Class Scholarship for Outstanding Merits	2014-2018