SHIYAO XU

✉ xsy9915@gmail.com · ☎ +86 18742585791 · ⌂ xusy2333.com

EDUCATION

Peking University, Wangxuan Institute of Computer Technology   2020 – 2023
M.Sc. in EECS, Computer Application Technology. Supervised by Prof. Zhouhui Lian.

Dalian University of Technology   2016 – 2020
B.S. in Software Engineering, Big Data. Supervised by Prof. Kun Lu

RESEARCH EXPERIENCE

1. DeSRF: Deformable Stylized Radiance Field

***Shiyao Xu**, Lingzhi Li, Li Shen, Zhouhui Lian.* **CVPR 2023 Workshop** *on GCV*
Brief Introduction: We propose a more efficient method, DeSRF, to stylize the radiance field, which also transfers style information to the geometry according to the input style. We introduce a deformable module into the stylization process, and a dilated sampling method for more efficient stylizing process.

2. Your3dEmoji: Creating Personalized Emojis via One-shot 3D-aware Cartoon Avatar Synthesis

***Shiyao Xu**, Lingzhi Li, Li Shen, Yifang Men, Zhouhui Lian.* **SIGGRAPH ASIA 2022** *Technical Communication*
Brief Introduction: We propose a novel 3D generative model to translate a real-world face image into its corresponding 3D avatar with only a single style example provided. Our model is 3D-aware in sense and also able to do attribute editing, such as smile, age, etc directly in the 3D domain.

3. Dynamic Texture Transfer using PatchMatch and Transformers

Guo Pu, **Shiyao Xu***, Zhouhui Lian. Under Review*
Brief Introduction: We propose a method to transfer a still image into the target dynamic effect automatically, which keeps not only the spatial-temporal stability but also a high-quality image effect. We introduce the PatchMatch and Transformers into the one-shot img2vid transfer task, and a Gaussian weighted average merging strategy for patch-embedded image smoothly assembling.

WORKING EXPERIENCE

Tsinghua University Research Assistant   2023.06 – present
Digital human/avatar generation from single image, supervised by Prof. Yebin Liu.   Beijing, CN
Cybever & TauLab *(a start-up company)* Research Scientist   2023.07 – present
Generative models for 3D assets creation. 3D-aware models editing.   Mountain View, USA
DAMO Academy Alibaba Inc. Research Intern   2021.08 – 2023.06
Research on generation models and neural rendering, supervised by Lingzhi Li and Dr. Li Shen.

- **Image generation using Transformers.** Do image generation with purely Transformers based on ViT, ViTGAN, TransGAN, SwinTransformer, etc.
- **3D-aware image/scene generation and stylization.** Attempt to build the bridge between 2D and 3D worlds. Proposed "Your3dEmoji" and "DeSRF".

MISC

- Serve as a volunteer (T.A. & R.A.) in SGI at MIT 2023.
- Receive the Academy's annual scholarship in Peking University, 2022.
- Serve as a Student Volunteer in SIGGRAPH 2022.
- T.A. of Elementary Number Theory for undergraduate students, Peking University, Spring 2021.
- Hackathon PKU 2021, 2nd Award (ranking **2/30**)