Personal Information

Name：　Wenlin Zhuang 　　　　　Gender：　Male

Birth：　1995-10 　　　　　　　Contact：　15850688318

Degree：　Master 　　　　　　　Email：　wlzhuang04@gmail.com

Homepage：　**https://colbyzhuang.github.io/**　　Wechat：　wxid04

Expected：　Algorithm Researcher/Engineer

Education

- ➢ 2018. 9—2021.6　　　　Southeast University　　　　Master
- ➢ 2014. 9—2018. 6　　　　Southeast University　　　　Bachelor

Experiment (Internship)

- ➢ 2020. 6—　　　　　　Alibaba Damo Academy　　　Expecting
- ➢ 2020. 3—2020.6　　　Tencent AI Lab　　　　　　Intelligent choreography
- ➢ 2019. 7—2020.1　　　Xmov　　　　　　　　　Human motion control; Dance synthesis

Skill

- ➢ Python

  Computer Vision, Computer Graphics, Machine Learning
- ➢ Others

  Blender, MotionBuilder

  PyTorch

  C++ for image processing

  Linux/Windows , Git

Project

- ➢ **Music-driven Dance Synthesis**　　　　　　　　　　**Xmov 2019.07-2020.02**

  Computer Graphics；Motion&Animation

  - ✧ Proposed a novel autoregressive generative model, DanceNet, to take the style, rhythm and melody of music as the control signals to generate 3D dance motions with high realism and diversity.
  - ✧ Captured several synchronized music-dance pairs by professional dancers, and build a high-quality music-dance pair dataset.

- ➢ **3D Dance Synthesis and Control**　　　　　　　　　**Southeast University 2020.01-2020.03**

  Computer Graphics；Motion&Animation

  - ✧ Proposed a novel generative motion model based on temporal convolution and LSTM, Temporal

Convolution-LSTM (TC-LSTM), to synthesize realistic and diverse dance motion.

✧ Introduced a unique control signal, the dance melody line, to heighten controllability.

➢ **Intelligent Choreography**   **Tencent AI Lab 2020.03-2020.06**

Computer Graphics；Motion&Animation

✧ Maintained existing retrieval-based dance synthesis method.

✧ Proposed an intelligent choreography method based on GAN. The generator is an autoencoder based skeleton-aware convolution. The discriminator is a multi-scale model based skeleton-aware convolution.

➢ **Human Motion Synthesis and Control**   **Xmov 2019.07-2020.01**

Computer Graphics；Motion&Animation

✧ Proposed a motion generative model based on temporal convolution.

✧ Achieved multi-applications: motion prediction/random synthesis, motion denoising, motion completion, motion control, motion style transfer.

➢ **Human Pose Estimation**   **Southeast University 2018.01-2018.07**

Computer Vision；Human Pose

✧ Adaptive heatmap: the kernel size of the heatmap should be adjusted according to the human body size of the image.

✧ Skeleton information: Multi-scale learning of limb region can make the model skeleton-aware.

➢ **Motion Retargeting**   **Southeast University 2018.07-2019.01**

Computer Graphics；Motion&Animation

✧ Proposed a Motion Increment Model based RNN.

✧ Built a Mixamo-retarget pair dataset through MotionBuilder and manual repair.

➢ **Human 3D Reconstruction**   **Southeast University 2019.01-2019.05**

Computer Vision; Computer Graphics；3D Reconstruction

✧ Learn about human reconstruction with clothing.

✧ The method of human reconstruction without clothing, UV Position Map.

Papers and Patents

➢ Papers

◇ **Wenlin Zhuang**， Conyi Wang, Siyu Xia, Jinxiang Chai, Yangang Wang. Music2Dance: DanceNet for music-driven dance generation. **Submit to ECCV2020**

◇ **Wenlin Zhuang**， Yangang Wang, et al. Towards 3D Dance Motion Synthesis and Control. **Submit to ACM MM2020**

◇ **Wenlin Zhuang**， Cong Peng, Siyu Xia, Yangang Wang. Multi-scale Adaptive Structure Network for Human Pose Estimation from Color Images. **ACCV 2018**

◇ **Wenlin Zhuang**，Tianshu Zhang, Siyu Xia, Yangang Wang. DeepRetarget: Deep Learning based Motion Increments Model for Motion Retargeting. **Submit to Journal**

◇ Shuaiying Hou, Weiwei Xu, **Wenlin Zhuang**, Yangang Wang, et al. MotionNet: A Deep Generative Model for Motion Modeling and Synthesis. **Submit to Siggraph Asia 2020**

➢ Three published national invention patents

Activities and awards

➢ 2019 National Scholarship
➢ 2018 Outstanding Graduate
➢ 2016 Excellent Student Leader
➢ 2016 Vice Chairman of the Student Union
➢ SRTP 25+ (2 points for graduation, 6 points for excellent)