Zhijie **Wu**

Intern student · Deep Learning

(+86)18782070071 | wzj.micker@gmail.com | https://zhijiew94.github.io/

Education

Department of Computer Science, Sichuan University *Chengdu, China*

B.S. in Computer Science and Engineering *Aug. 2012 - July. 2016*

- GPA: 91/100. Ranking: 2/378. National Scholarship Award.

Research Project

EFANet: Exchangeable Feature Alignment Network for Arbitrary Style Transfer *Accepted by AAAI 2020*

Zhijie Wu*, Chunjin Song*, Yang Zhou, Minglun Gong, Hui Huang

- We propose a novel end-to-end framework to extract exchangeable features to improve the performance of style-transfer task.
- A novel *whitening operation* is also developed to better combine the content and style features.
- Evaluated on the large-scale datasets, the proposed method outperforms other baselines with better visual details.

ETNet: Error Transition Network for Arbitrary Style Transfer *Accepted by NeurIPS 2019*

Zhijie Wu*, Chunjin Song*, Yang Zhou, Minglun Gong, Hui Huang

- We introduce the concept of error-correction mechanism and error diffusion operation to arbitrary style transfer by evaluating errors in stylization results and correcting them iteratively.
- By explicitly computing the features for perceptual loss in a feed-forward network, each refinement is formulated as an error diffusion process.
- The overall style transfer framework can perform arbitrary style transfer and synthesize highly detailed results with favored styles.

Structure-aware Generative Network for 3D-Shape Modeling *Accepted by ACM Siggraph 2019*

Zhijie Wu, XIANG WANG, DI LIN, DANI LISCHINSKI, DANIEL COHEN-OR, HUI HUANG

- We propose a new end-to-end generative framework by jointly considering the geometry and structure.
- The joint analysis strategy enables us to achieve shape completion and geometry-structure translation.
- Additionally, we come up with a new idea to evaluate the advantage of our model. By using some well-designed toy examples, we can demonstrate that our model can capture the dependency between geometry and structure better.

Working Experience

Visual Computing Center, Shenzhen University *Shenzhen, China*

Research Assistant *May. 2017 - PRESENT*

- Supervised by Hui Huang, in the area of 3D generative models and style transfer.
- We had one paper on 3D generative models accepted by Siggraph 2019 and two other papers on arbitrary style transfer accepted by NeurIPS 2019 and AAAI 2020 respectively.

Human computer interaction research center, SIAT *Shenzhen, China*

Research Assistant *Jan. 2017 - May. 2017*

- Follow the state-of-art research in the area of mesh texture smoothing, supervised by Jin Qing.
- Use the idea of Low-Rank to compute the correlation of patches from a mesh, then use the normals to smooth the vertex coordinates.

Software Group,DJ-Innovations *Shenzhen, China*

Software Developer *Dec. 2015 - Dec. 2016*

- Develop apps for mobile devices to control DJI's drones with Objective-C.
- Take part in the testing and deployment of DJI's new products.

Honors & Awards

2016 **Outstanding Final-Year Project**, Top 5% student in Computer Science Department *Chengdu, China*

2014 **National Scholarship**, Top 3% student in Computer Science Department *Chengdu, China*

2013 **2nd Scholarship Award**, Excellent student in Computer Science Department *Chengdu, China*

Skills

Programming Python, C/C++, Objective-C, PHP, HTML5, Javascript

Framework Tensorflow, Qt

Other tools LaTeX, Git