

# KEYU CHEN

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## EDUCATION

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**University of Science and Technology of China, PRC** *Sep. 2018 - June 2021 (expected)*  
Master in Computational Science and Applied Mathematics  
Department of Mathematics  
Supervised by Prof. Juyong Zhang

**Nanyang Technological University, Singapore** *Aug. 2019 - Mar. 2020*  
Research Intern at Multimedia and Interactive Computing Lab (MIDL)  
School of Computer Science and Engineering  
Co-supervised by Prof. Jianmin Zheng, Prof. Juyong Zhang and Prof. Jianfei Cai

**University of Science and Technology of China, PRC** *Sep. 2014 - June 2018*  
Bachelor of Computational Science and Applied Mathematics  
Department of Mathematics

## RESEARCH INTERESTS

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Intersection area of computer vision and graphics including 3D face animation, representation and expression analysis.

## PUBLICATION

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**Disentangled Representation Learning For 3D Face Shape**  
Zi-Hang Jiang, Qianyi Wu, **Keyu Chen** and Juyong Zhang  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

**Facial Expression Retargeting from Human to Avatar Made Easy**  
Juyong Zhang, **Keyu Chen** and Jianmin Zheng  
IEEE Transaction of Visualization and Computer Graphics (TVCG).

**Modeling Caricature Expressions by 3D Blendshape and Dynamic Texture**  
**Keyu Chen**, Jianmin Zheng, Jianfei Cai, Juyong Zhang  
ACM Multimedia Conference (ACM MM), 2020.

## PROJECTS

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**Extending Generalized Barycentric Coordinates** *May 2018 - Aug. 2018*  
*GSoC 2018 Project with CGAL Organization*  
The project aimed to extend the existed Generalized Barycentric Coordinates package in CGAL with another two powerful coordinates, Harmonic Coordinates and Maximum Entropy Coordinates. This project was mentored by Dr. Dmitry Anisimov and obtained all pass evaluations in Google Summer of Code 2018.

**Disentangled 3D Face Representation Learning** *Aug. 2018 - Nov. 2018*  
*CVPR 2019*  
The project was motivated by nonlinear encoder-decoder technology in building disentangled 3D face shape attribute domains. Our paper is accepted by CVPR 2019 conference as *Disentangled Representation Learning for 3D Face Shape*.

### **3D Character Expression Animation**

*Feb. 2019 - Aug. 2019*

*TVCG*

We designed an easy-to-use approach for building 3D character animation system. Our contribution is that we novelly considered human perception factor in facial expression area. The full paper is under-going review process.

### **3D-based Caricature Animation**

*Aug. 2019 - Feb. 2020*

*ACM MM 2020*

This system allows simple input as low-dimentional expression parameters and can output high-quality caricature animation series. The underlying algorithms are implemented with 3d geometric modelling and deep learning techniques. The full paper is undergoing review process.

## **WORK EXPERIENCE**

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### **Dilusense Tech., Hefei**

Feb 2018 - May 2018

*Research Intern*

- Responsible for building real-time rgbd facial animation system.

### **DeepGlint Tech., Hefei**

June 2017 - July 2017

*Software Developer*

- Participated in building an automatic motor vehicles license detection system

## **SKILLS/ LANGUAGES**

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**Programming:** C++, Python, Generic Programming

**Software:** Matlab, Latex

**English:** TOEFL 106 (R:29 L:29 S:24 W:24)