

# Hongrui Cai

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**Email:** hrcai@mail.ustc.edu.cn    **GitHub:** github.com/RainbowRui    **Homepage:** rainbowrui.github.io

**Research interests**      Computer Vision & Graphics: 3D geometry processing, point cloud processing, image and video generation.

**Education**      **University of Science and Technology of China**      Hefei, China  
Ph.D. in 3D Vision      Sep. 2021 – Present  
Mentors: Prof. Juyong Zhang.

**University of Science and Technology of China**      Hefei, China  
M.S. in Data Science      Sep. 2019 – Jul. 2021  
Mentors: Prof. Juyong Zhang. GPA: 3.85/4.3

**South China University of Technology**      Guangzhou, China  
B.S. in Mathematics and Applied Mathematics      Sep. 2015 – Jun. 2019  
Ranking: 1/46. GPA: 92.15/100

**Papers**      Huang, X., **Cai, H.**, Liang, D., Zhang, J., Jia, J., (2021). CariPainter: Sketch Guided Interactive Caricature Generation. (Under Review).

Feng, W., **Cai, H.**, Hou, J., Deng, B., Zhang, J., (2021). Differentiable Deformation Graph based Neural Non-rigid Registration. (Under Review).

**Cai, H.**, Guo, Y. Peng, Z., Zhang, J., (2021). Landmark Detection and 3D Face Reconstruction for Caricature using a Nonlinear Parametric Model. *Graphical Models (GMOD)*.

Feng, W., Zhang, J., **Cai, H.**, Xu, H., Hou, J., Bao, H., (2021). Recurrent Multi-view Alignment Network for Unsupervised Surface Registration. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*.

Guo, Y., Zhang, J., Chen, Y., **Cai, H.**, Huang, Z., Deng, B., (2021). Real-Time Face View Correction for Front-Facing Cameras. *Computational Visual Media (CVM)*.

**Projects**      **Real-Time Face View Correction for Front-Facing Cameras**  
Horizontal project      Sep. 2019 – Oct. 2020  
Propose a fully automatic face view correction system based on a single RGB camera to solve video calling problems such as "upward nose" and "big face" caused by disparity between camera location and face orientation.

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| Honors         | Excellent Undergraduate Student, by SCUT                     | 2019        |
|                | Excellent Undergraduate Thesis Award, by SCUT                | 2019        |
|                | First-Class Academic Scholarships for Postgraduates, by USTC | 2019 - 2021 |
| Academic Talks | Oral presentation in CVM 2021                                | Apr. 2021   |