Hongrui Cai

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.

Selected 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