Hongrui Cai

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Email: hrcai AT 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 the 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