Yichun Shi

San Jose, USA Website
sc2h6o@gmail.com
https://github.com/seasonSH
https://scholar.google.com/citations?user=RXZChV0AAAAJ

Education

Ph.D. Computer Science 2016 - 2021

Michigan State University
Supervisor : Anil K. Jain

B.S. Computer Science 2012 - 2016

Shanghai Jiao Tong University
IEEE Honored Class

Experience

Research Scientist, ByteDance, USA 2021 - Present

- Developing automatic image generation and editing systems for products.
- Conducting research on generative models and neural rendering.

Generative Model | Image Synthesis | Video Generation | 3D Generation | AIGC

Research Intern, NEC Lab of America May 2019 - Aug 2019

Developing a universal face representation model that could be used to recognize different kind of unconstrained faces.
The work was accepted to CVPR 2020.

Face Recognition | Data Augmentation | Representation Learning

PhD Intern, Visa Inc. May 2018 - Aug 2018

Conducting research on ID document face recognition.

Image Synthesis | Face Recognition

Publications

[1] **Y. Shi**, P. Wang, J. Ye, L. Mai, K. Li, and X. Yang, "MVDream : Multi-view diffusion for 3d generation," 2023.

[2] S. An, H. Xu, **Y. Shi**, G. Song, U. Y. Ogras, and L. Luo, "Panohead : Geometry-aware 3d full-head synthesis in 360deg," in *CVPR*, 2023.

[3] S. Chen, K. Zhang, **Y. Shi**, H. Wang, Y. Zhu, G. Song, S. An, J. Kristjansson, X. Yang, and M. Zwicker, "Panic-3d : Stylized single-view 3d reconstruction from portraits of anime characters," in *CVPR*, 2023.

[4] G. Song, H. Xu, J. Liu, T. Zhi, **Y. Shi**, J. Zhang, Z. Jiang, J. Feng, S. Sang, and L. Luo, "Agilegan3d : Few-shot 3d portrait stylization by augmented transfer learning," *arXiv:2303.14297*, 2023.

[5] J. Zhang, Z. Jiang, D. Yang, H. Xu, **Y. Shi**, G. Song, Z. Xu, X. Wang, and J. Feng, "Avatargen : a 3d generative model for animatable human avatars," in *ECCV Workshops*, 2023.

[6] H. Xu, G. Song, Z. Jiang, J. Zhang, **Y. Shi**, J. Liu, W. Ma, J. Feng, and L. Luo, "Omniavatar : Geometry-guided controllable 3d head synthesis," in *CVPR*, 2023.

[7] L. Zhang, X. Lei, **Y. Shi**, H. Huang, and C. Chen, "Federated learning for iot devices with domain generalization," *IEEE Internet of Things Journal*, 2023.

[8] J. Sun, X. Wang, **Y. Shi**, L. Wang, J. Wang, and Y. Liu, "Ide-3d : Interactive disentangled editing for high-resolution 3d-aware portrait synthesis," *ACM Transactions on Graphics (TOG)*, 2022.

[9] **Y. Shi**, X. Yang, Y. Wan, and X. Shen, "Semanticstylegan : Learning compositional generative priors for controllable image synthesis and editing," in *CVPR*, 2022.

[10] X. Zhou, X. Lei, C. Yang, **Y. Shi**, X. Zhang, and J. Shi, "Handling data heterogeneity in federated learning via knowledge fusion," *arXiv:2207.11447*, 2022.

[11] **Y. Shi**, D. Aggarwal, and A. K. Jain, "Lifting 2d stylegan for 3d-aware face generation," in *CVPR*, 2021.

[12] **Y. Shi** and A. K. Jain, "Boosting unconstrained face recognition with auxiliary unlabeled data," in *CVPR Workshops*, 2021.

[13] **Y. Shi**, X. Yu, K. Sohn, M. Chandraker, and A. K. Jain, "Towards universal representation learning for deep face recognition," in *CVPR*, 2020.

[14] S. Gong, **Y. Shi**, and A. Jain, "Low quality video face recognition : Multi-mode aggregation recurrent network (marn)," in *CVPR Workshops*, 2019.

[15] **Y. Shi** and A. K. Jain, "Probabilistic face embeddings," in *ICCV*, 2019.

[16] S. Gong, Y. Shi, N. D. Kalka, and A. K. Jain, "Video face recognition : Component-wise feature aggregation network (c-fan)," in *ICB*, 2019.

[17] **Y. Shi**, D. Deb, and A. K. Jain, "Warpgan : Automatic caricature generation," in *CVPR*, 2019.

[18] **Y. Shi** and A. K. Jain, "Docface+ : Id document to selfie matching," *Trans. on Biometrics, Behavior, and Identity Science (T-BIOM)*, 2019.

[19] D. Deb, S. Wiper, S. Gong, **Y. Shi**, C. Tymoszek, A. Fletcher, and A. K. Jain, "Face recognition : Primates in the wild," in *Conf. on Biometrics Theory, Applications and Systems (BTAS)*, 2019.

[20] **Y. Shi** and A. K. Jain, "Docface : Matching id document photos to selfies," in *Conf. on Biometrics Theory, Applications and Systems (BTAS)*, 2019.

[21] **Y. Shi** and A. Jain, "Improving face recognition by exploring local features with visual attention," in *ICB*, 2018.

[22] **Y. Shi**, C. Otto, and A. K. Jain, "Face clustering : representation and pairwise constraints," *Trans. on Information Forensics and Security (TIFS)*, 2018.

Academic Service

I have served as a reviewer for CVPR (2020,2021,2022,2023), ICCV (2021), SIGGRAPH (2021), AAAI (2021,2022), WACV (2021,2022), TPAMI, TIP, TVCG, TIFS, Signal Processing, etc.