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🎓 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," *arXiv:2308.16512*, 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.