YI ZHOU 周易

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http://zhouyisjtu.github.io/

I am a research scientist at Adobe. I work in the interdisciplinary field of Computer Graphics and Computer Vision. My research focuses on autonomous 3D characters and the related deep learning technologies for modeling and simulation.

EDUCATION

Ph.D. Computer Science - University of Southern California **08/2016 – 05/2020**
With Annenberg Fellowship

- Advisor: Dr. Hao Li
- Field: Computer Graphics, Computer Vision and Deep Learning.
- Thesis: Deep Representations for Shapes, Structures and Motion.

M.S. Software Engineering - Shanghai Jiao Tong University **09/2013 – 03/2016**

- Advisor: Dr. Shuangjiu Xiao
- Field: Augmented Reality and Human Computer Interaction.
- Thesis: Projection Mapping on Movable 3D Objects.

B.S. Software Engineering - Shanghai Jiao Tong University **09/2009 – 07/2013**

PUBLICATIONS

- **FULLY CONVOLUTIONAL MESH AUTOENCODER USING EFFICIENT SPACIALY VARYING KERNELS**

  Yi Zhou, Chenglei Wu, Zimo Li, Chen Cao, Yuting Ye, Jason Saragih, Hao Li and Yaser Sheikh.

  Proceedings of the 34th Conference on Neural Information Processing Systems,

  (Neurips 2020), 12/2020

- **GENERATIVE TWEENING: LONG-TERM INBETWEENING OF 3D HUMAN MOTIONS**

  Yi Zhou, Jingwan Lu, Connelly Barnes, Jimei Yang, Sitao Xiang and Hao Li.

  Submitted to TOG

- **ON THE CONTINUITY OF ROTATION REPRESENTATIONS IN NEURAL NETWORKS**

  Yi Zhou*, Connelly Barnes*, Jingwan Lu, Jimei Yang, and Hao Li.

  Proceedings of the 32nd IEEE International Conference on Computer Vision and Pattern Recognition,

  (CVPR 2019), 06/2019

- **HAIRNET: SINGLE-VIEW HAIR RECONSTRUCTION USING CONVOLUTIONAL NEURAL NETWORKS**

  Yi Zhou, Liwen Hu, Jun Xing, Weikai Chen, Han-Wei Kung, and Hao Li.

  Proceedings of the 15th European Conference on Computer Vision,

  (ECCV 2018), 09/2018

  -The Best of the Physics arXiv (week ending June 30, 2018) by Emerging Technology from the arXiv

  -Featured in Nvidia News

- **AUTO-CONDITIONED RECURRENT NETWORKS FOR EXTENDED COMPLEX HUMAN MOTION SYNTHESIS**

  Yi Zhou*, Zimo Li*, Shuangjiu Xiao, Chong He, and Hao Li.

  Proceedings of the Sixth International Conference on Learning Representations 2018,

  (ICLR 2018), 04/2018

- **REALISTIC DYNAMIC FACIAL TEXTURES FROM A SINGLE IMAGE USING GANS**

  Kyle Olszewski*, Zimo Li*, Chao Yang*, **Yi Zhou**, Ronald Yu, Zeng Huang, Sitao Xiang, Shunsuke Saito, Pushmeet Kohli, and Hao Li.

  Proceedings of the IEEE International Conference on Computer Vision 2017,

(ICCV 2017), 10/2017

- **PMOMO: PROJECTION MAPPING ON MOVABLE 3D OBJECT**

  Yi Zhou, Shuangjiu Xiao, Ning Tang, Zhiyong Wei, and Xu Chen.

  Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, pp. 781-790. ACM, 2016 (CHI 2016), 05/2016

Working Experience

Adobe (San Jose) **06/2020 – present**
Research Scientist
Manager: Dr. Jingwan (Cynthia) Lu

- Topic: 3D human modeling, motion synthesis, neural simulation.

Facebook Reality Lab (Pittsburgh) **05/2019 – 12/2019**
Research Intern
Mentor: Dr. Chenglei Wu

- Topic: Mesh convolution for high-resolution 3D body codec.

Adobe (San Jose) **05/2018 – 08/2018**
Research Intern
Mentor: Dr. Jingwan (Cynthia) Lu

- Topic: Human motion synthesis.

Pinscreen (Santa Monica) **05/2017 – 08/2017**
Research Intern

- Topic: Face tracking and facial expression retargeting in videos.

Microsoft Research Asia (Beijing) **06/2015 – 09/2015**
Internet Graphics Group – Research Intern
Mentor: Dr. Xin Tong and Dr. Yue Dong

- Topic: 3D hair tracking and reconstruction from single-view videos.

INNOVATION AWARDS

World-wide 3rd place (Top 0.5%) at "Microsoft Imagine Cup – Azure Challenge" **2013**
Microsoft Imagine Cup is the biggest student innovation competition in the world.

World-wide 1st place at "Ericsson Application Awards" **2012**

AWARDS

Annenberg Symposium Award 2018, 2019
Women in Machine Learning at NIPS 2018 Travel Award
ICLR 2018 Travel Award

PATENTS

- US Patent: "Generating Realistic Animations for Digital Animation Characters Utilizing a Generative Adversarial Network and A Hip Motion Prediction Network", filed 07/25/2019, Patent Pending.
- Chinese Patent: ZL 201310208253.3, filed 05/30/2013, and issued 03/02/2016.
- Chinese Patent: ZL 201310208266.0, filed 05/30/2013, and issued 03/02/2016.
- Chinese Patent: ZL 201310210827.0, filed 05/30/2013, and issued 12/28/2016.
- Chinese Patent: ZL 201310209941.1, filed 05/30/2013, and issued 12/28/2016.

TEACHING ASSISTANT

Database Systems (CSCI 585, USC) **Spring 2019**
Digital Geometry Processing (CSCI 621, USC) **Spring 2017**

ACADEMIC SERVICES

Reviewer of ACM VRST 2017, ACM VRST 2018, WiML 2018, VISINF 2018, CVPR 2019, ICCV 2019, Siggraph Asia 2020, CVPR 2020, ToG, PAMI.

CODING SKILLS

C++, C#, Python, Pytorch, Erlang