YI ZHOU 周易

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I am a Ph.D. candidate at the University of Southern California. I work in the interdisciplinary field of Computer Graphics, Computer Vision and Deep Learning. My research interests include AI-driven human dynamics synthesis and deep representations for complex geometries. I have worked on projects related to human motion synthesis, hair and face digitizing and real-time AR systems.

EDUCATION

Ph.D. Computer Science - University of Southern California **08/2016 – present**

With Annenberg Fellowship

- Advisor: Dr. Hao Li
- Field: Computer Graphics, Computer Vision and Deep Learning.
- Topics: AI-driven human reconstruction and motion synthesis. Representation learning for complex geometries.

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

- **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

INTERNSHIP

Facebook Reality Lab (Pittsburgh) **05/2019 – present**
Research Intern
Mentor: Dr. Chenglei Wu
- Topic: Social VR

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

Intel Asia (Shanghai) - Pacific Research & Development Ltd **04/2015 – 06/2015**
Software & Service Group – Developer Intern
- Developing OpenGL and DirectX sdk for 3D displays

Ericsson (Shanghai) R&D Center **07/2012 – 01/2013**
IMS Development – Developer Intern

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

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

CODING SKILLS

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