

Yuanlu Xu

Curriculum Vitae

Research Experiences

Jul 2019 – Present
Research Scientist at Facebook Reality Labs Research, USA
• 3D Virtual Humans

Sep 2014 – Jun 2019
Research Assistant at Center for Vision, Cognition, Learning, and Autonomy, UCLA
• 3D Scene and Event Understanding

Jun 2018 – Nov 2018
Research Intern at Oculus Research, Facebook
• 3D Human Reconstruction

Jun 2013 – Aug 2014
Research Intern at NEC Laboratories China
• Multimedia Processing and Analysis

June 2011 – June 2013
Research Assistant at Intelligent Media Computing Lab, Sun Yat-Sen University
• Image and Video Processing

Selected Publications

ARCH++: Animation-Ready Clothed Human Reconstruction Revisited

Tong He, Yuanlu Xu*, Shunsuke Saito, Stefano Soatto, Tony Tung
IEEE International Conference on Computer Vision (ICCV), 2021 (* corresponding)

Monocular 3D Pose Estimation via Pose Grammar and Data Augmentation

Yuanlu Xu, Wenguan Wang, Tengyu Liu, Xiaobai Liu, Jianwen Xie, Song-Chun Zhu
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021

ARCH: Animatable Reconstruction of Clothed Humans

Zeng Huang, Yuanlu Xu, Christoph Lassner, Hao Li, Tony Tung
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020

DenseRaC: Joint 3D Shape and Pose Estimation by Dense Render-and-Compare

Yuanlu Xu, Song-Chun Zhu, Tony Tung
IEEE International Conference on Computer Vision (ICCV) (oral), 2019

A Causal And-Or Graph Model for Visibility Fluent Reasoning in Tracking Interacting Objects

Yuanlu Xu, Lei Qin, Xiaobai Liu, Jianwen Xie, Song-Chun Zhu
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018

Attentive Fashion Grammar Network for Fashion Landmark Detection and Clothing Category Classification

Wenguan Wang*, Yuanlu Xu*, Jianbin Shen, Song-Chun Zhu
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018 (* equal)

Learning Pose Grammar to Encode Human Body Configuration for 3D Pose Estimation

Hao-shu Fang*, Yuanlu Xu*, Wenguan Wang, Xiaobai Liu, Song-Chun Zhu
AAAI Conference on Artificial Intelligence (AAAI) (oral), 2018 (* equal)

Cross-view People Tracking by Scene-centered Spatio-temporal Parsing

Yuanlu Xu, Xiaobai Liu, Lei Qin, Song-Chun Zhu
AAAI Conference on Artificial Intelligence (AAAI) (oral), 2017

Multi-view People Tracking via Hierarchical Trajectory Composition

Yuanlu Xu, Xiaobai Liu, Yang Liu, Song-Chun Zhu
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016

Human Re-Identification by Matching Compositional Template with Cluster Sampling

Yuanlu Xu, Liang Lin, Wei-Shi Zheng, Xiaobai Liu
IEEE International Conference on Computer Vision (ICCV), 2013

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Education

2014 – 2019 **Ph.D. of Computer Science**
Advisor: Prof. Song-Chun Zhu
Spec: Vision, AI
University of California, Los Angeles

2014 – 2016 **Master of Science**
Advisor: Prof. Song-Chun Zhu
Computer Science, Spec: Vision, AI
University of California, Los Angeles

2012 – 2014 **Master of Engineering**
Advisor: Prof. Liang Lin
Computer Technology, Spec: Vision
Sun Yat-Sen University

2008 – 2012 **Bachelor of Engineering**
GPA 4.0/4.0, Ranking 1/78
Software Engineering
Sun Yat-Sen University

Research Interest

Computer Vision and Graphics

- 3D vision: 3D reconstruction, 3D virtual humans, 3D scene parsing, 3D from a single image
- scene and event understanding: person identification, object tracking, pose estimation, action recognition

Machine Learning

- Deep learning, generative models, temporal models
- Statistical modeling, graphical models, stochastic inference

Selected Academic Activities

• Reviewer for ICCV 2017-2021, CVPR 2017-2021, ECCV 2018-2020, NeurIPS 2020-2021, AAAI 2019-2021, IJCAI 2018-2020, ACM MM 2019-2021, ACCV 2018-2020

• Reviewer for IEEE TMM, IEEE TCSVT, IEEE VR, Pattern Recognition, Neurocomputing, IET Computer Vision

Selected Awards & Honors

2014-2015 **UCLA Fellowship**
University of California, Los Angeles

2013-2014 **Graduate National Scholarship**
Chinese Ministry of Education

2012 **Outstanding Undergraduate**
Sun Yat-Sen University

2008-2011 **Undergraduate National Scholarship**
Chinese Ministry of Education

Programming Skills

Language python, c++, matlab, java
Tools linux, \LaTeX , html5, git, cmake
Libraries pytorch, tensorflow, caffe