

# Wanhua Li

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## Academic Employment

### School of Engineering and Applied Sciences, Harvard University

Postdoctoral Fellow, working with Prof. Hanspeter Pfister

Boston, USA  
Oct. 2022 - Present

## Education

### Department of Automation, Tsinghua University

Ph.D. in Computer Vision

Advisors: Prof. Jiwen Lu, and Prof. Jianjiang Feng

GPA: 3.9/4.0, Top 1/76

Beijing, China  
Aug. 2017 - Jun. 2022

### School of Data and Computer Science, Sun Yat-Sen University

B.E. in Computer Science

GPA: 4.0/4.0, Top 1/118

Guangzhou, China  
Aug. 2013 - Jun. 2017

## Work Experiences

### Visual Computing Group at Microsoft Research Asia (MSRA)

Research assistant, working with Dr. Qi Dai and Dr. Han Hu

Jun. 2022 - Oct. 2022

### Horizon Robotics

Research intern

Jul. 2019 - Aug. 2019

### Huawei Noah Ark's Lab

Research intern advised by Prof. Qi Tian

Oct. 2018 - Jun. 2019

### iSEE Lab, Sun Yat-Sen University

Research assistant advised by Prof. Wei-Shi Zheng

Mar. 2016 - Jul. 2017

## Publications

\* indicates equal contribution

### Peer-Reviewed Conference Publications

- [1] Devaansh Gupta, Siddhant Kharbanda, Jiawei Zhou, **Wanhua Li**, Hanspeter Pfister, and Donglai Wei  
**Transferring Visual Knowledge with Pre-trained Models for Multimodal Machine Translation**  
IEEE International Conference on Computer Vision (ICCV), 2023
- [2] Shuai Shen, **Wanhua Li**, Xiaobing Wang, Dafeng Zhang, Zhezhu Jin, Jie Zhou, and Jiwen Lu  
**CLIP-Cluster: CLIP-Guided Attribute Hallucination for Face Clustering**  
IEEE International Conference on Computer Vision (ICCV), 2023
- [3] Shuai Shen, Wenliang Zhao, Zibin Meng, **Wanhua Li**, Zheng Zhu, Jie Zhou, and Jiwen Lu  
**DiffTalk: Crafting Diffusion Models for Generalized Audio-Driven Portraits Animation**  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- [4] **Wanhua Li\***, Xiaoke Huang\*, Zheng Zhu, Yansong Tang, Xiu Li, Jie Zhou, and Jiwen Lu  
**OrdinalCLIP: Learning Rank Prompts for Language-Guided Ordinal Regression**  
Conference on Neural Information Processing Systems (NeurIPS), 2022
- [5] **Wanhua Li**, Zhexuan Cao, Jianjiang Feng, Jie Zhou, and Jiwen Lu  
**Label2Label: A Language Modeling Framework for Multi-Attribute Learning**  
European Conference on Computer Vision (ECCV), 2022
- [6] Shuai Shen, **Wanhua Li**, Zheng Zhu, Yueqi Duan, Jie Zhou, and Jiwen Lu  
**Learning Dynamic Facial Radiance Fields for Few-Shot Talking Head Synthesis**  
European Conference on Computer Vision (ECCV), 2022

- [7] **Wanhua Li**, Xiaoke Huang, Jiwen Lu, Jianjiang Feng, and Jie Zhou  
**Learning Probabilistic Ordinal Embeddings for Uncertainty-Aware Regression**  
*IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021
- [8] **Wanhua Li**, Shiwei Wang, Jiwen Lu, Jianjiang Feng, and Jie Zhou  
**Meta-Mining Discriminative Samples for Kinship Verification**  
*IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021
- [9] Shuai Shen, **Wanhua Li**, Zheng Zhu, Guan Huang, Dalong Du, Jiwen Lu, and Jie Zhou  
**Structure-Aware Face Clustering on a Large-Scale Graph with  $10^7$  Nodes**  
*IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021
- [10] Bingyao Yu, **Wanhua Li**, Xiu Li, Jiwen Lu, and Jie Zhou  
**Frequency-Aware Spatiotemporal Transformers for Video Inpainting Detection**  
*IEEE International Conference on Computer Vision (ICCV)*, 2021
- [11] **Wanhua Li**, Yueqi Duan, Jiwen Lu, Jianjiang Feng, and Jie Zhou  
**Graph-Based Social Relation Reasoning**  
*European Conference on Computer Vision (ECCV)*, 2020
- [12] **Wanhua Li**, Jiwen Lu, Jianjiang Feng, Chunjing Xu, Jie Zhou and Qi Tian  
**BridgeNet: A Continuity-Aware Probabilistic Network for Age Estimation**  
*IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019
- [13] **Wanhua Li**, Yingqiang Zhang, Kangchen Lv, Jiwen Lu, Jianjiang Feng, and Jie Zhou  
**Graph-Based Kinship Reasoning Network**  
*IEEE International Conference on Multimedia and Expo (ICME)*, 2020, Oral Presentation
- [14] Benchao Li, **Wanhua Li**, Yongyi Tang, Jian-Fang Hu, and Wei-Shi Zheng  
**GL-PAM RGB-D Gesture Recognition**  
*IEEE International Conference on Image Processing (ICIP)*, 2018

### Peer-Reviewed Journal Publications

- [15] Bingyao Yu, Xiu Li, **Wanhua Li**, Jie Zhou, and Jiwen Lu  
**Discrepancy-aware Meta-learning for Zero-shot Face Manipulation Detection**  
*IEEE Transactions on Image Processing (TIP)*, 2023
- [16] **Wanhua Li**, Jiwen Lu, Abudukelimu Wuerkaixi, Jianjiang Feng, and Jie Zhou  
**MetaAge: Meta-Learning Personalized Age Estimators**  
*IEEE Transactions on Image Processing (TIP)*, 2022
- [17] Hongyi Sun, **Wanhua Li**, Yueqi Duan, Jie Zhou, and Jiwen Lu  
**Learning Adaptive Patch Generators for Mask-Robust Image Inpainting**  
*IEEE Transactions on Multimedia (TMM)*, 2022
- [18] **Wanhua Li**, Jiwen Lu, Abudukelimu Wuerkaixi, Jianjiang Feng, and Jie Zhou  
**Reasoning Graph Networks for Kinship Verification: from Star-shaped to Hierarchical**  
*IEEE Transactions on Image Processing (TIP)*, 2021

### Talks

- **Learning Probabilistic Ordinal Embeddings for Uncertainty-Aware Regression**  
Invited Presentation at 2021 Beijing University Academic Forum on Artificial Intelligence April 2021
- **Graph-Based Kinship Reasoning Network**  
ICME'2020 Oral Presentation July 2020
- **BridgeNet: A Continuity-Aware Probabilistic Network for Age Estimation**  
Invited Presentation at 2019 Beijing University Academic Forum on Artificial Intelligence March 2019

### Scholarships and Awards

- NeurIPS Scholar Award 2022
- ICCV Doctoral Consortium Travel Award 2021
- Weihai Talent Scholarship, Tsinghua 2021
- 3rd Place in VIPriors Instance Segmentation Challenge at ICCV 2021
- Outstanding Oral Presentation at 2021 Beijing University Academic Forum on Artificial Intelligence 2021
- 2nd Place in ChaLearn LAP Large-scale Isolated Gesture Recognition Challenge at ICCV 2017

- Outstanding Undergraduate Thesis, SYSU 2017
- Outstanding Graduate, SYSU 2017
- National Encouragement Scholarship, Ministry of Education of P.R. China 2016
- **National Scholarship, Ministry of Education of P.R. China** 2015
- **National Scholarship, Ministry of Education of P.R. China** 2014

## Academic Services

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### Conference Reviewer / PC Member

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- AAAI Conference on Artificial Intelligence (AAAI)
- International Joint Conference on Artificial Intelligence (IJCAI)
- IEEE International Conference on Multimedia and Expo (ICME)
- IEEE International Conference on Image Processing (ICIP)
- International Conference on Pattern Recognition (ICPR)
- Chinese Conference on Pattern Recognition and Computer Vision (PRCV)

### Journal Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Biometrics, Behavior, and Identity Science
- IEEE Transactions on Cybernetics
- International Journal of Computer Vision
- Pattern Recognition
- Neural Networks
- Neurocomputing
- Pattern Recognition Letters
- Knowledge-Based Systems
- Journal of Visual Communication and Image Representation