# Wanhua Li

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## Academic Employment

**School of Engineering and Applied Sciences, Harvard University**  — Boston, USA
Postdoctoral Fellow, working with Prof. Hanspeter Pfister — *Oct. 2022 - Present*

## Education

**Department of Automation, Tsinghua University** — Beijing, China
Ph.D. in Computer Vision — *Aug. 2017 - Jun. 2022*
Advisors: Prof. Jiwen Lu, and Prof. Jianjiang Feng
GPA: 3.9/4.0, Top 1/76

**School of Data and Computer Science, Sun Yat-Sen University** — Guangzhou, China
B.E. in Computer Science — *Aug. 2013 - Jun. 2017*
GPA: 4.0/4.0, Top 1/118

## 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 Publications

[1] 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*

[2] **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*

[3] **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*

[4] 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*

[5] **Wanhua Li**, Jiwen Lu, Abudukelimu Wuerkaixi, Jianjiang Feng, and Jie Zhou
**MetaAge: Meta-Learning Personalized Age Estimators**
*IEEE Transactions on Image Processing (**TIP**), 2022*

[6] 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*

[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**, 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*

[12] **Wanhua Li**, Yueqi Duan, Jiwen Lu, Jianjiang Feng, and Jie Zhou
**Graph-Based Social Relation Reasoning**
*European Conference on Computer Vision (**ECCV**), 2020*

[13] **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*

[14] **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*

[15] 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*

## 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

### Conference Reviewer / PC Member

*2/3*

- 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