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] 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

[2] 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

[3] **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

[4] **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

[5] 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

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

[7]   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*

[8]   **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*

[9]   **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*

[10] 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*

[11] 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*

[12] **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*

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

[14] **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*

[15] **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

[16] 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

- 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