Wanhua Li

☎ +86 18811536986 ● ✉ wanhua016@gmail.com ● 🖥 li-wanhua.github.io

Education

Department of Automation, Tsinghua University — Beijing, China
Aug 2017 - June 2022(Expected)

PhD student in Computer Vision

Advisors: Prof. Jiwen Lu (IAPR Fellow), and Prof. Jianjiang Feng

GPA: 3.9/4.0, Top 1/76

School of Data and Computer Science, Sun Yat-Sen University — Guangzhou, China
Aug 2013 - June 2017

B.E. in Computer Science

GPA: 4.0/4.0, Top 1/118

Experiences

Huawei Noah Ark's Lab
Research intern advised by Prof. Qi Tian (IEEE Fellow) — *Oct 2018 - June 2019*

Horizon Robotics
Research intern — *July 2019 - Aug 2019*

iSEE Lab, Sun Yat-Sen University
Research assistant advised by Prof. Wei-Shi Zheng — *March 2016 - July 2017*

Publications

* indicates equal contribution

Peer-Reviewed Publications

[1] **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*

[2] **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*

[3] 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*

[4] 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*

[5] **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*

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

[8] **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*

[9] **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***

Manuscripts under Review

[10] **Wanhua Li**, Zhexuan Cao, Jianjiang Feng, Jie Zhou, and Jiwen Lu
Label2Label: A Language Modeling Framework for Multi-Attribute Learning
in Submission, 2022

[11] **Wanhua Li***, Xiaoke Huang*, Zheng Zhu, Yansong Tang, Xiu Li, Jiwen Lu, and Jie Zhou
OrdinalCLIP: Learning Rank Prompts for Language-Guided Ordinal Regression
in Submission, 2022

[12] Bingyao Yu, **Wanhua Li**, Xiu Li, Jie Zhou, and Jiwen Lu
Uncertainty-aware Hierarchical Labeling for Deepfake Detection
in Submission, 2022

[13] Shuai Shen, **Wanhua Li**, Zheng Zhu, Yueqi Duan, Jie Zhou, and Jiwen Lu
Learning Dynamic Facial Radiance Fields for Few-Shot Talking Head Synthesis
in Submission, 2022

[14] Shuai Shen*, **Wanhua Li***, Xiaoke Huang*, Zheng Zhu*, Jie Zhou, and Jiwen Lu
SD-NeRF: Towards Lifelike Talking Head Animation via Spatial-adaptive Dual-driven NeRFs
in Submission, 2022

[15] Hongyi Sun, **Wanhua Li**, Yueqi Duan, Jiwen Lu, and Jie Zhou
Mask-Aware 3D Axial Transformer for Video Inpainting
in Submission, 2022

[16] **Wanhua Li**, Jiwen Lu, Jianjiang Feng, and Jie Zhou
Meta-Sampling and Meta-Mining Discriminative Samples for Kinship Verification
Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2022

[17] **Wanhua Li**, Jiwen Lu, Abudukelimu Wuerkaixi, Jianjiang Feng, and Jie Zhou
MetaAge: Meta-Learning Personalized Age Estimators
Submitted to IEEE Transactions on Image Processing (**TIP**), **major revision**, 2021

Technical Reports

[18] Pengyu Chen*, **Wanhua Li***
Data-Efficient Instance Segmentation with a Single GPU
3rd Place Solution on Instance Segmentation Track of ICCV 2021 VIPriors Challenges

[19] Benchao Li, **Wanhua Li**, Yongyi Tang, Jian-Fang Hu, and Wei-Shi Zheng
GL-PAM RGB-D Gesture Recognition
2nd Place Solution in the ChaLearn LAP Large-scale Isolated Gesture Recognition Challenge

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

○ ICCV Doctoral Consortium Travel Award	*2021*
○ **Weihai Talent Scholarship, Tsinghua (Top 5%)**	*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)

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
- Pattern Recognition
- Neural Networks
- Neurocomputing
- Pattern Recognition Letters
- Journal of Visual Communication and Image Representation

Students Mentored

- Rong He, Master's student in Computer Science, Tsinghua, 2021 Summer
- Zhiheng Li, PhD student in Computer Science, Tsinghua, 2021 Summer
- Shuai Shen, PhD student in Computer Science, Tsinghua, 2020 Fall
- Xiaoke Huang, Master's student in Computer Science, Tsinghua, 2020 Fall
- Kangchen Lv, Master's student in Robotics, Tsinghua, 2020 Spring
- Abudukelimu Wuerkaixi, PhD student in Computer Science, Tsinghua, 2020 Spring
- Ruidong Tian, Master's student in Robotics, BUPT, 2019 Winter
- Chaohui Song, Master's student in Robotics, BUPT, 2019 Fall
- Shiwei Wang, Master in Robotics, BUPT, 2019 Spring

Referees

- Prof. Qi Tian (IEEE Fellow), Huawei
- Prof. Jie Zhou (IAPR Fellow), Department of Automation, Tsinghua
- Prof. Jiwen Lu (IAPR Fellow), Department of Automation, Tsinghua