# Jianzhu Guo



# Institute of Automation Chinese Academy of Sciences

# INFORMATIONS \

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GitHub: https://github.com/cleardusk (590+ Followers , 5K ★)

Homepage: https://guojianzhu.com | Google Scholar

**Address:** No. 95, Zhongguancun Road, Haidian District, Beijing, China **Interests:** Face Analysis: Face Recognition, 3D Face, Anti-Spoofing, Attribute.

Learning methods: Meta-Learning and Deep Learning.



### EDUCATIONS \

2016.09-Now | Ph.D. candidate | Supervisor: **Stan Z. Li** | National Laboratory of Pattern Recognition (NLPR), Institute of Automation, Chinese Academic of Sciences (CASIA)

2012.09-2016.06 | Bachelor degree | School of Transportation, Southeast University (SEU)

■ Ranking 2/28 , 2015.7 enrolled to NLPR, CASIA in summer camp without entrance examination.

## PUBLICATIONS \

- [1] **Jianzhu Guo**, Xiangyu Zhu, Zhen Lei, Stan Z. Li, "Decomposed Meta Batch Normalization for Fast Domain Adaptation in Face Recognition", **TIFS** (SCI-I, CCF-A), 2021
- [2] **Jianzhu Guo**, Xiangyu Zhu, Chenxu Zhao, Dong Cao, Zhen Lei, Stan Z. Li, "Learning Meta Face Recognition in Unseen Domains", **CVPR** (**Oral**, acceptance rate 5%), 2020
- [3] **Jianzhu Guo**, Xiangyu Zhu, Yang Yang, Fan Yang, Zhen Lei, Stan Z. Li, "Towards Fast, Accurate and Stable 3D Dense Face Alignment", **ECCV**, 2020
- [4] Dong Cao, Xiangyu Zhu, Xingyu Huang, **Jianzhu Guo**, Zhen Lei, "Domain Balancing: Face Recognition on Long-Tailed Domains", **CVPR**, 2020
- [5] Xiangyu Zhu, Fan Yang, Di Huang, Chang Yu, Hao Wang, **Jianzhu Guo**, Zhen Lei, Stan Z. Li, "Beyond 3DMM Space: Fine-grained 3D Face Reconstruction", **ECCV**, 2020
- [6] Xiaqing Xu, Qiang Meng, Yunxiao Qin, **Jianzhu Guo**, Chenxu Zhao, Feng Zhou, Zhen Lei, "Searching for Alignment in Face Recognition", **AAAI**, 2021
- [7] **Jianzhu Guo**, Xiangyu Zhu, Jinchuan Xiao, Zhen Lei, Genxun Wan, Stan Z. Li, "Improving Face Anti-Spoofing by 3D Virtual Synthesis", **ICB** (**Oral**, acceptance rate 11%), 2019
- [8] Jinchuan Xiao, Yinhang Tang, **Jianzhu Guo**, Yang Yang, Xiangyu Zhu, Zhen Lei, Stan Z. Li, "3DMA: A Multi-modality 3D Mask Face Anti-spoofing Database", **IEEE AVSS**, 2019
- [9] **Jianzhu Guo**, Xiangyu Zhu, Zhen Lei, Stan Z. Li, "Face Synthesis for Eyeglass-Robust Face Recognition", **CCBR**, 2018 (https://github.com/cleardusk/MeGlass, 280+★)
- [10] **Jianzhu Guo**, Zhen Lei, Jun Wan et al, "Dominant and Complementary Emotion Recognition From Still Images of Faces", **IEEE Access**, 2018
- [11] **Jianzhu Guo**, Shuai Zhou, Jinlin Wu, Jun Wan, Xiangyu Zhu, Zhen Lei, Stan Z. Li, "Multi-modality Network with Visual and Geometrical Information for Micro Emotion Recognition", **FG**, 2017
- [12] Zelin Zang, Siyuan Li, Di Wu, **Jianzhu Guo**, Yongjie Xu, Stan Z. Li, "Deep Manifold Attributed Graph Embedding with Graph Geodesic Similarity", Under Review (**KDD**), 2021
- [13] Jun Xia, Cheng Tan, **Jianzhu Guo**, Lirong Wu, Yongjie Xu, Stan Z. Li, "OT-Cleaner: Refurbishing Unclean Labels with Optimal Transport", Under Review (**ICML**), 2021
- [14] Zicheng Liu, Siyuan Li, Di Wu, Zhiyuan Chen, Lirong Wu, **Jianzhu Guo**<sup>†</sup>, Stan Z. Li, "AutoMix: Unveiling the Power of Mixup", Under Review (**ICCV**), 2021

#### PROJECTS & COMPETITIONS

- ◆ 2018-Now 3D Dense Face Alignment
  - 3DDFA: Super-realtime 3D dense face alignment → https://github.com/cleardusk/3DDFA,
     Impact: 3K★, 570+ Forks, twitter of PyTorch
  - 3DDFA\_V2: The extended ECCV20 work of 3DDFA → https://github.com/cleardusk/3DDFA\_V2,
     Impact: 1.5K★, 230+ Forks, twitter
  - 2019: 3D dense face alignment in NIR scenario across large pose.
- ◆ 2016-2020 Face Recognition
  - 2016 Face inpainting: Design a two-stage strategy of segmentation-regression based on CNN to remove face dense watermark, thus greatly improving the performance of face verification.
  - 2017-2018 IvS Face Recognition: Up to 10 million-scale identities, with the performance of TPR=93%@FAR=1e-6, TPR=85%@FAR=1e-7 of single model.
  - 2017-2018 NIR-VIS Face Recognition: Achieving the best performace in four public academic database and reach about **95%@FAR=1e-6** in real-world scenario.
  - 2018 Watermark IvS Face recognition: One million-scale identities with the performance of TPR=85%@FAR=1e-6 in real scenario applications.
  - 2019 Facial emotion recognition: Emotion recognition in surveillance scenario with top-1 ~70%.
  - 2020 IvS Face Recognition: Maks-occluded IvS face recognition, TPR improves by 30% at the FAR=1e-5.
- Competitions
  - 2017 HUAWEI Code Craft: Awarded Silver Medal (rank 5 / 64) in Beijing Site.
  - 2017 Face Analysis: Win the champion of micro emotion competition in FG 2017. (First author)
- ◆ Patent
  - Meta-learning Based Domain Adaptation for Face Recognition 202011517834.1 (pending)
- Experience
  - 2020.10-2021.3: Visiting researcher in WestLake University



#### SKILLS

- Programming language & Deep Learning Framework: Python, C/C++, Matlab, Caffe, PyTorch
- Platform: Linux & macOS
- Coding & Researching, D, & | Table tennis singles, team championships in CASIA & team championships in UCAS

#### AWARDS 📉

- 2015 Sample Technology Scholarship
- 2015 Grand Prize (rank 1) on the 14-th National Challenge Cup Theme-Based Competition on "Smart Green Cities" (As Team Leader, rank 1 / 807)
- 2015 Transportation Design Institute Scholarship
- 2014 National Encouragement Scholarship
- 2014 Honorable Mention Award for Mathematical Contest in Modeling (MCM)
- 2014 Provincial First Prize for China Undergraduate Mathematical Contest in Modeling
- 2014 Third Prize for Programming Contest
- 2014 First Frize (rank 1) for Short Code Competition
- 2013 National Encouragement Scholarship
- 2013 Second Prize for Transportation Technology Competition