

Zhizhong Huang

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SUMMARY

I am a fourth-year Ph.D. student at Fudan University advised by [Prof. Junping Zhang](#) and [Dr. Hongming Shan](#). Previously, I got my bachelor's degree from Sichuan University in 2019. My main research interests include unsupervised/semi-supervised learning, generative model and biometrics, especially face-related applications. I am highly self-motivated, of great passion/coding skills, and able to work independently.

EDUCATION

2019 - present Ph.D. candidate in Computer Science at **Fudan University**, Shanghai, China.
2015 - 2019 Bachelor in Software Engineering at **Sichuan University**, Chengdu, China.
GPA: 3.71/4.0 (top 4%).

HONORS AND AWARDS

2016 - 2017 National Scholarship.
2017 - 2018 National Scholarship.
2020 - 2021 National Scholarship.
2021 Second prize of CCF University Student Academic Show (PhD Group)  [Chinese Link](#)

PUBLICATIONS

Journal

- **Zhizhong Huang**, Junping Zhang and Hongming Shan. "When Age-Invariant Face Recognition Meets Face Age Synthesis: A Multi-Task Learning Framework and A New Benchmark." IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**) 2022.  [Code](#) |  [arXiv](#)
- **Zhizhong Huang**, Jie Chen, Junping Zhang and Hongming Shan. "Learning Representation for Clustering via Prototype Scattering and Positive Sampling." IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**) 2022.  [Code](#) |  [arXiv](#)
- **Zhizhong Huang**, Shouzheng Chen, Junping Zhang, and Hongming Shan. "PFA-GAN: Progressive Face Aging with Generative Adversarial Network." IEEE Transactions on Information Forensics and Security (**TIFS**) 2021.  [Code](#) |  [arXiv](#)
- **Zhizhong Huang**, Junping Zhang, Yi Zhang, and Hongming Shan. "DU-GAN: Generative Adversarial Networks with Dual-Domain U-Net Based Discriminators for Low-Dose CT Denoising." IEEE Transactions on Instrumentation and Measurement (**TIM**) 2021.  [Code](#) |  [arXiv](#)
- Weiyi Yu, **Zhizhong Huang**, Junping Zhang and Hongming Shan. "SAN-Net: Learning Generalization to Unseen Sites for Stroke Lesion Segmentation with Self-Adaptive Normalization." Computers in Biology and Medicine (**CIBM**) 2023.  [Code](#) |  [DOI](#)
- Yuan Li, **Zhizhong Huang**, Xiaoli Dong, Weibo Liang, Hui Xue, Lin Zhang, Yi Zhang, and Zhenhua Deng. "Forensic age estimation for pelvic X-ray images using deep learning." **European Radiology** 2019. Equal contributions.  [DOI](#)

Conference

- **Zhizhong Huang**, Junping Zhang, and Hongming Shan. "Twin Contrastive Learning with Noisy Labels." Proceedings of IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) 2023.  [Code](#) |  [arXiv](#)

- **Zhizhong Huang**, Junping Zhang, and Hongming Shan. “When Age-Invariant Face Recognition Meets Face Age Synthesis: A Multi-Task Learning Framework.” Proceedings of IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR Oral**) 2021. [Code](#) | [arXiv](#)
- **Zhizhong Huang**, Shouzhen Chen, Junping Zhang, and Hongming Shan. “AgeFlow: Conditional Age Progression and Regression with Normalizing Flows.” International Joint Conference on Artificial Intelligence (**IJCAI**) 2021. [Code](#) | [arXiv](#)
- **Zhizhong Huang**, Junping Zhang, and Hongming Shan. “RoutingGAN: Routing Age Progression and Regression with Disentangled Learning.” Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**) 2021. [arXiv](#)
- Mingliang Dai, **Zhizhong Huang**, Jiaqi Gao, Hongming Shan, Junping Zhang. “Cross-head Supervision for Crowd Counting with Noisy Annotations.” Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**) 2023. [Code](#) | [arXiv](#)
- Haiping Zhu, **Zhizhong Huang**, Hongming Shan, and Junping Zhang. “Look globally, age locally: Face aging with an attention mechanism.” Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**) 2020. [Code](#) | [arXiv](#)

Preprint

- Jiaqi Gao, **Zhizhong Huang**, Yiming Lei, James Z. Wang, Fei-Yue Wang and Junping Zhang. “S2FPR: Crowd Counting via Self-Supervised Coarse to Fine Feature Pyramid Ranking.” [Code](#) | [arXiv](#)

PROJECTS

Pytorch-openpose (over 1.5k stars)

[Github](#)

Pytorch implementation of openpose including Hand and Body Pose Estimation.

Precipitation-Nowcasting (445 stars)

[Github](#)

Implemented a pytorch-based encoder-forecaster model with RNNs including (TrajGRU, ConvLSTM) to do precipitation nowcasting.

Torch clustering

[Github](#)

A pure PyTorch implementation of kmeans and GMM with distributed clustering.

SKILLS AND SERVICES

English CET-6

Reviewer Top Conferences such as ICML, NIPS, CVPR, *etc.*

Coding Python, PyTorch, *etc.*