Zhizhong Huang

 Github | Homepage | zzhuang19@fudan.edu.cn | Google Scholar

SUMMARY

I am a last-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 representation learning, unsupervised/semi-supervised learning, and generative models. I am highly self-motivated, of great passion/coding skills, and able to work independently.

EDUCATION

2019 - 2024	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.
2022 - 2023	National Scholarship.
2021	Second prize of CCF University Student Acaemic Show (PhD Group) Chinese Link

SELECTED PUBLICATIONS

Face Aging/Editing/Recognition

- **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**, Shouzhen 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, 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**, Siteng Ma, Junping Zhang, and Hongming Shan. "Adaptive Nonlinear Latent Transformation for Conditional Face Editing." International Conference on Computer Vision (**ICCV**) 2023. 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

Self-supervised Learning

- **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**, Junping Zhang, and Hongming Shan. "Twin Contrastive Learning with Noisy Labels." Proceedings of IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**)

2023.

Objet Counting/Detection

- **Zhizhong Huang**, Mingliang Dai, Yi Zhang, Junping Zhang and Hongming Shan. "Point, Segment and Count: A Generalized Framework for Object Counting." ArXiv Preprint 2311.12386. Code | arXiv
- Jiaqi Gao, **Zhizhong Huang**, Yiming Lei, Hongming Shan, James Z. Wang, Fei-Yue Wang and Junping Zhang. "Deep Rank-Consistent Pyramid Model for Enhanced Crowd Counting." IEEE Transactions on Neural Networks and Learning Systems (**TNNLS**) 2023. Code | 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

Medical Imaging

- **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
- Yuan Li, **Zhizhong Huang**, Xiaoai 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
- 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

PROJECTS

Pytorch-openpose (over 1.8k stars) Github
Pytorch implementation of openpose including Hand and Body Pose Estimation.

Precipitation-Nowcasting (500 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.*