Zhisheng Zhong

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Education

Peking University, Beijing, China Sep. 2016 - Jul. 2019
M.S. in Computer Science, Supervisors: Zhouchen Lin and Chao Zhang

Beijing University of Posts and Telecommunications, Beijing, China Sep. 2012 - Jul. 2016
B.E. in Telecommunication Engineering, GPA: 89/100, Ranking: Top-3%

Research Interests

DL Deep network architecture, efficient and lightweight network.
CV Low-level vision.

Publications

- **Frist Author**

[1] Shupeng Su*, **Zhisheng Zhong***, Chao Zhang. "Deep Joint-semantics Reconstructing Hashing for Large-scale Unsupervised Cross-modal Retrieval". *International Conference on Computer Vision (ICCV)*, 2019. [pdf] and [code]

[2] **Zhisheng Zhong**, Fangyin Wei, Zhouchen Lin, Chao Zhang. "ADA-Tucker: Compressing Deep Neural Networks via Adaptive Dimension Adjustment Tucker Decomposition". *Elsevier, Neural Networks (NN)*, 2019. **5-Year Impact Factor: 6.864**. [pdf]

[3] **Zhisheng Zhong**, Tiancheng Shen, Yibo Yang, Chao Zhang, Zhouchen Lin. "Joint Sub-bands Learning with Clique Structures for Wavelet Domain Super-Resolution". *Neural Information Processing Systems (NIPS)*, 2018. [pdf]

[4] **Zhisheng Zhong**, Yong Sun, Yue Wang, et al. "An Improved Collaborative Filtering Recommendation Algorithm not Based on Item Rating". *International Conference on Cognitive Informatics & Cognitive Computing (ICCI*CC)*, 2015. Undergraduate period. [pdf]

[*] **Zhisheng Zhong**, balabalabalabalabalabala. "Deep Image Compression balabalabalabalabalabala". *submitted to International Joint Conferences on Artificial Intelligence (IJCAI)*, 2020.

- **Joint Author**

[1] Xia Li, **Zhisheng Zhong**, Jianlong Wu, Yibo Yang, Zhouchen Lin, Hong Liu. "Expectation Maximization Attention Networks for Semantic Segmentation". *International Conference on Computer Vision (ICCV)*, 2019. **Oral, Top-4.3%**. [pdf] and [code]

[2] Xingyu Xie, Jianlong Wu, **Zhisheng Zhong**, Guangcan Liu, Zhouchen Lin. "Differentiable Linearized ADMM". *International Conference on Machine Learning (ICML)*, 2019. [pdf] and [code]

[3] Tiancheng Shen, Xia Li, **Zhisheng Zhong**, Jianlong Wu, Zhouchen Lin. "R^{2}Net Recurrent and Recursive Network for Sparse View CT Artifacts Removal". *Medical Image Computing and Computer Assisted Interventions (MICCAI)*, 2019.

[4] Yibo Yang, **Zhisheng Zhong**, Tiancheng Shen, Zhouchen Lin. "Convolutional Neural Networks with Alternately Updated Clique". *Computer Vision and Pattern Recognition (CVPR)*, 2018. **Oral, Top-2.3%**. [pdf] and [code]

- **Patents**

[1] Zhouchen Lin, **Zhisheng Zhong**, et al. "Joint Sub-bands Learning with Clique Structures for Wavelet Domain Super-Resolution". Chinese Patent No.: 201811007566.1.

[2] Zhouchen Lin, **Zhisheng Zhong**, et al. "A DNN Compression Method Based on Adaptive Dimension Adjustment Tucker Decomposition". Chinese Patent No.: 201710623220.3.

Honors & Awards

2019 **Qualcomm Scholarship**, Peking University (Top-2%)

2019 **Excellent Graduate**, Peking University (Top-10%)

2018 **Bao Steel Education Scholarship**, Peking University (Top-5%)

2018 **Merit Student**, Peking University (Top-5%)

2016 **Third Prize**, National Graduate Contest on Smart-city Technology and Creative Design, China

2016 **Excellent Graduate**, Beijing (Top-5%)

2015 **Honorable Prize**, Mathematical modeling competition for American college students, USA

2014 **Merit Student**, Beijing University of Posts and Telecommunications (Top-5%)

2014 **National Encouragement Scholarship**, Beijing University of Posts and Telecommunications

2013 **Merit Student**, Beijing University of Posts and Telecommunications (Top-5%)

2013 **National Encouragement Scholarship**, Beijing University of Posts and Telecommunications

2013 **First Prize**, Beijing undergraduate physics competition, Beijing (Top-10%)

2013 **First Prize**, Beijing undergraduate mathematics competition, Beijing (Top-10%)

Experiences

Research Intern, Microsoft Research Asia, Beijing, China　　　Mar. 2018 - May. 2018

We design compacted CNN models with different-scales to detect face key points on Widerface.

Visiting Scholar in Statistic, Florida State University, Florida, USA　　　Nov. 2017 - Feb. 2018

Supervisor: **Yiyuan She**, we propose an optimization-based inherent clustering framework.

Skills

Language Chinese: *native*; English: *fluent*

Programming Experienced in Python, Matlab, C/C++, LaTeX

Libraries Experienced in Pytorch, Keras, familiar with TensorFlow, Caffe, Scikit-learn

Courseworks

M.S. Pattern Recognition, Machine Learning, Deep Learning, Computer Vision, Digital Image Processing, Convex Optimization.

B.E. Calculus, Probability Theory, Linear Algebra, Information Theory, Principles of Communications, Digital Signal Processing, C++ Programming, Data Structures and Algorithm Design.