

# Hao Cheng

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## EDUCATION

- M.A. Communication and Information Systems, Chinese Academy of Sciences, 2019  
B.S. Electronics Science and Technology, JiLin University, 2016

## RESEARCH AREAS

**Understanding neural networks.** *e.g.*, information bottleneck theory

**Efficient training algorithm.** *e.g.*, network pruning, distillation, self-paced learning

I am especially interested in the cross field between deep learning and information theory.

## PUBLICATIONS

### Conference Paper

- 2018 Hao Cheng, Dongze Lian, Shenghua Gao, Yanlin Geng. “Evaluating Capability of Deep Neural Networks for Image Classification via Information Plane” **ECCV2018**
- 2019 Hao Cheng\*, Dongze Lian\*, Bowen Deng, Shenghua Gao, Tao Tan, Yanlin Geng. “Local to Global Learning: Gradually Adding Classes for Training Deep Neural Networks” **CVPR2019**
- 2020 Fanxu Meng\*, Hao Cheng\*, Ke Li, Zhixin Xu, Rongrong Ji, Xing Sun, Guangming Lu. “Filter Grafting for Deep Neural Networks” **CVPR2020**
- 2020 Fengxiang Yang, Ke Li, Zhun Zhong, Xing Sun, Hao Cheng, Xiaowei Guo, Feiyue Huang, Rongrong Ji, Shaozi Li. “Asymmetric Co-Teaching for Unsupervised Cross-Domain Person Re-Identification” **AAAI2020**

### Journal Paper

- 2019 Hao Cheng, Dongze Lian, Shenghua Gao, Yanlin Geng. “Utilizing Information Bottleneck to Evaluate Capability of Deep Neural Networks for Image Classification” **entropy**

### Paper under review

- 2020 Hao Cheng, Fanxu Meng, Ke Li, Huixiang Luo, Xing Sun, Xiaowei Guo, Feiyue Huang, Guangming Lu. “DGD: Densifying the Knowledge of Neural Networks with Filter Grafting and Knowledge Distillation” **under review**

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