Zhe Zheng

zzqiuzz@gmail.com

Github : https://www.github.com/zzqiuzz (+86) 18262607760

OBJECTIVE

Second grade graduate student at Nanjing Univ Of Info Sci and Tech(NUIST) supervised by Professor Qingshan Liu. Inquisitive, hard-working and consistent.

EDUCATION

Nanjing Univ of Information Science and Technology, Nanjing
Master student in Control Science and Engineering Expected June,2020
Nanjing Univ of Information Science and Technology, Nanjing
Bachelor of Engineering, Automation 2013.9-2017.7

TECHNICAL SKILLS

Languages : Python,C++/C,Matlab
DeepLearning Framework : Caffe $\geq$ *Pytorch* $>$ $Tensorflow$

EXPERIENCE

Intern at CASIA-AIRIA 2018.11-2019.8

Works supervised by Cong leng and Pei-song Wang mainly on:
1.Quantizing both weights and activations of Generative Adversarial Networks.
2.Dynamic pruning both on channel-wise and spatial-wise upon CNNs.

PROJECTS

Quantized CNN Deployment 2016.11-2017.3

The quantized-cnn demo which can be seen here https://github.com/jiaxiang-wu/quantized-cnn to be embedded in my Android project.This project is developed by Android Stduio 2.3 under Ubuntu16.04.It mainly processes an image shot by phone's camera for image classification.And I assess its run time for comparison with its original model.You can refer to this project finding apk files to be installed on your own andorid phone for more details.

CNNs Pruning 2017.11-2018.4

Prunnig DNNs based on Evolutionary Algorithms,follow ThiNet.

- Pruning DNNs in a filter-wise level.
- Select filters to be prunned by Evolutionary Algorithm.
- EA-tiny:5MB in model size preserving AlexNet-level accuracy.
- https://github.com/zzqiuzz/Prune_filters.git

Low bit DNNs 2018.5-2018.11

Reduce float representation to low bit ones in neural network.Home-brewed caffe is available online with BWN and TWN implemented.

- https://github.com/zzqiuzz/caffe-zz

Quantize Generative Adversarial Networks 2019.2-2019.5

We propose a method to simultaneously quantize weights and activations in GANs, we use Frchet Inception Distance score to evaluate generated images of quantized GANs . Sensitivity analysis shows that weights are more sensitive than activation in quantization process. Motivated by this phenomenon,extensive experiments are conducted on Mnist and Celeb-A datasets. Results show that we can compress GANs by up to 4x and still achieve even higher performance than the original GANs.Codes are released at https://github.com/zzqiuzz/Dcgan_quantization

PAPERS AND AWARDS

1st in "HUAWEI Cup" The 15th China Post-Graduate Mathematical Contest in Modeling
Quantizinig both activations and weights in Generative Adversarial Networks.ChinaMM2019