

1

Model : resnet18

regularization : dropout

optimizer : SGD with momentum and scheduler

Hyperparameter Setting

- learning_rate = 1e-2
- training_epochs = 50
- batch_size = 64
- momentum = 0.9
- dropout_rate = .4
- scheduler_step = 2
- scheduler_gamma = 0.9

Mean Accuracy : 82.51

#2

기존 #1에 아래 사항 추가

- Data Augmentation(RandomResizedCrop, RandomHorizontalFlip)
- Data Normalize

Mean Accuracy : 87.29

#3

기존 #2에 아래 사항 추가

- Data Augmentation(rotation, affine, colorjitter)

Mean Accuracy : 79.03

#4

기존 #2에 아래 사항 추가

- regularization(weight decay: 5e-4)

Mean Accuracy : 77.82

#5

Model : wide resnet 50-2

optimizer : SGD with momentum and scheduler

Data Augmentation : RandomResizedCrop, RandomHorizontalFlip

Data Normalize

Hyperparameter Setting

- learning_rate = 0.1
- scheduler_step = 30
- scheduler_gamma = 0.2
- training_epochs = 100
- batch_size = 32
- momentum = 0.9
- dropout_rate = 0.3

Mean Accuracy : 82.38

6

Model: resnet152

optimizer : SGD with momentum and scheduler

Data Augmentation : RandomResizedCrop, RandomHorizontalFlip

Data Normalize

Hyperparameter Setting

- learning_rate = 0.001
- training_epochs = 100
- batch_size = 16
- momentum = 0.9
- scheduler_step = 1
- scheduler_gamma = 0.99

Mean Accuracy : 90.08

7

Model: resnet152

optimizer : SGD with momentum and scheduler

Data Augmentation : RandomResizedCrop, RandomHorizontalFlip

Data Normalize

Hyperparameter Setting

- learning_rate = 0.001
- training_epochs = 50
- batch_size = 32
- momentum = 0.9
- scheduler_step = 1
- scheduler_gamma = 0.96

Mean Accuracy : 91.17