HW7_1

December 5, 2023

[1]:
```
import argparse
import os
import time
import shutil
import sys as sys
import torch.nn.utils.prune as prune


import torch
import torch.nn as nn
import torch.optim as optim
import torch.nn.functional as F
import torch.backends.cudnn as cudnn


import torchvision
import torchvision.transforms as transforms

from models import *



global best_prec
use_gpu = torch.cuda.is_available()
print('=> Building model...')
device = torch.device("cuda")



batch_size = 128
model_name = "VGG16_quant_4bit_hw7"
model = VGG16_quant()


for name, module in model.named_modules():
    if isinstance(module, QuantConv2d):
        module.bit = 4
```

```
        print(f"Layer name: {name}, bit: {module.bit}")

print(model)


normalize = transforms.Normalize(mean=[0.491, 0.482, 0.447], std=[0.247, 0.243,␣
 ↪0.262])


train_dataset = torchvision.datasets.CIFAR10(
    root='./data',
    train=True,
    download=True,
    transform=transforms.Compose([
        transforms.RandomCrop(32, padding=4),
        transforms.RandomHorizontalFlip(),
        transforms.ToTensor(),
        normalize,
    ]))
trainloader = torch.utils.data.DataLoader(train_dataset, batch_size=batch_size,␣
 ↪shuffle=True, num_workers=2)


test_dataset = torchvision.datasets.CIFAR10(
    root='./data',
    train=False,
    download=True,
    transform=transforms.Compose([
        transforms.ToTensor(),
        normalize,
    ]))

testloader = torch.utils.data.DataLoader(test_dataset, batch_size=batch_size,␣
 ↪shuffle=False, num_workers=2)


print_freq = 100 # every 100 batches, accuracy printed. Here, each batch␣
 ↪includes "batch_size" data points
# CIFAR10 has 50,000 training data, and 10,000 validation data.

def train(trainloader, model, criterion, optimizer, epoch):
    batch_time = AverageMeter()
    data_time = AverageMeter()
    losses = AverageMeter()
    top1 = AverageMeter()

    model.train()
```

```
    end = time.time()
    for i, (input, target) in enumerate(trainloader):
        # measure data loading time
        data_time.update(time.time() - end)

        input, target = input.cuda(), target.cuda()

        # compute output
        output = model(input)
        loss = criterion(output, target)

        # measure accuracy and record loss
        prec = accuracy(output, target)[0]
        losses.update(loss.item(), input.size(0))
        top1.update(prec.item(), input.size(0))

        # compute gradient and do SGD step
        optimizer.zero_grad()
        loss.backward()
        optimizer.step()

        # measure elapsed time
        batch_time.update(time.time() - end)
        end = time.time()


        if i % print_freq == 0:
            print('Epoch: [{0}][{1}/{2}]\t'
                  'Time {batch_time.val:.3f} ({batch_time.avg:.3f})\t'
                  'Data {data_time.val:.3f} ({data_time.avg:.3f})\t'
                  'Loss {loss.val:.4f} ({loss.avg:.4f})\t'
                  'Prec {top1.val:.3f}% ({top1.avg:.3f}%)'.format(
                   epoch, i, len(trainloader), batch_time=batch_time,
                   data_time=data_time, loss=losses, top1=top1))



def validate(val_loader, model, criterion ):
    batch_time = AverageMeter()
    losses = AverageMeter()
    top1 = AverageMeter()

    # switch to evaluate mode
    model.eval()

    end = time.time()
```

```
    with torch.no_grad():
        for i, (input, target) in enumerate(val_loader):

            input, target = input.cuda(), target.cuda()

            # compute output
            output = model(input)
            loss = criterion(output, target)

            # measure accuracy and record loss
            prec = accuracy(output, target)[0]
            losses.update(loss.item(), input.size(0))
            top1.update(prec.item(), input.size(0))

            # measure elapsed time
            batch_time.update(time.time() - end)
            end = time.time()

            if i % print_freq == 0:  # This line shows how frequently print out␣
↪the status. e.g., i%5 => every 5 batch, prints out
                print('Test: [{0}/{1}]\t'
                  'Time {batch_time.val:.3f} ({batch_time.avg:.3f})\t'
                  'Loss {loss.val:.4f} ({loss.avg:.4f})\t'
                  'Prec {top1.val:.3f}% ({top1.avg:.3f}%)'.format(
                   i, len(val_loader), batch_time=batch_time, loss=losses,
                   top1=top1))

    print(' * Prec {top1.avg:.3f}% '.format(top1=top1))
    return top1.avg


def accuracy(output, target, topk=(1,)):
    """Computes the precision@k for the specified values of k"""
    maxk = max(topk)
    batch_size = target.size(0)

    _, pred = output.topk(maxk, 1, True, True)
    pred = pred.t()
    correct = pred.eq(target.view(1, -1).expand_as(pred))

    res = []
    for k in topk:
        correct_k = correct[:k].view(-1).float().sum(0)
        res.append(correct_k.mul_(100.0 / batch_size))
    return res
```

```python
class AverageMeter(object):
    """Computes and stores the average and current value"""
    def __init__(self):
        self.reset()

    def reset(self):
        self.val = 0
        self.avg = 0
        self.sum = 0
        self.count = 0

    def update(self, val, n=1):
        self.val = val
        self.sum += val * n
        self.count += n
        self.avg = self.sum / self.count


def save_checkpoint(state, is_best, fdir):
    filepath = os.path.join(fdir, 'checkpoint.pth')
    torch.save(state, filepath)
    if is_best:
        shutil.copyfile(filepath, os.path.join(fdir, 'model_best.pth.tar'))


def adjust_learning_rate(optimizer, epoch):
    """For resnet, the lr starts from 0.1, and is divided by 10 at 80 and 120␣
 ↪epochs"""
    adjust_list = [150, 225]
    if epoch in adjust_list:
        for param_group in optimizer.param_groups:
            param_group['lr'] = param_group['lr'] * 0.1
```

```
=> Building model…
Layer name: features.0, bit: 4
Layer name: features.3, bit: 4
Layer name: features.7, bit: 4
Layer name: features.10, bit: 4
Layer name: features.14, bit: 4
Layer name: features.17, bit: 4
Layer name: features.20, bit: 4
Layer name: features.24, bit: 4
Layer name: features.27, bit: 4
Layer name: features.30, bit: 4
Layer name: features.34, bit: 4
Layer name: features.37, bit: 4
Layer name: features.40, bit: 4
```

```
VGG_quant(
  (features): Sequential(
    (0): QuantConv2d(
      3, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (1): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (2): ReLU(inplace=True)
    (3): QuantConv2d(
      64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (4): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (5): ReLU(inplace=True)
    (6): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (7): QuantConv2d(
      64, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (8): BatchNorm2d(128, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (9): ReLU(inplace=True)
    (10): QuantConv2d(
      128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (11): BatchNorm2d(128, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (12): ReLU(inplace=True)
    (13): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (14): QuantConv2d(
      128, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (15): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (16): ReLU(inplace=True)
    (17): QuantConv2d(
      256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (18): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (19): ReLU(inplace=True)
```

```
    (20): QuantConv2d(
      256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (21): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (22): ReLU(inplace=True)
    (23): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (24): QuantConv2d(
      256, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (25): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (26): ReLU(inplace=True)
    (27): QuantConv2d(
      512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (28): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (29): ReLU(inplace=True)
    (30): QuantConv2d(
      512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (31): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (32): ReLU(inplace=True)
    (33): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (34): QuantConv2d(
      512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (35): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (36): ReLU(inplace=True)
    (37): QuantConv2d(
      512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
      (weight_quant): weight_quantize_fn()
    )
    (38): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (39): ReLU(inplace=True)
    (40): QuantConv2d(
      512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
```

```
      (weight_quant): weight_quantize_fn()
    )
    (41): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (42): ReLU(inplace=True)
    (43): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (44): AvgPool2d(kernel_size=1, stride=1, padding=0)
  )
  (classifier): Linear(in_features=512, out_features=10, bias=True)
)
Files already downloaded and verified
Files already downloaded and verified
```

[2]:
```
# Train
lr = 4e-2  #hyperparameter 2
weight_decay = 1e-4 #hyperparameter 3
epochs = 260 #hyperparameter 4
best_prec = 0 #hyperparameter 5

#model = nn.DataParallel(model).cuda()
model.cuda()
criterion = nn.CrossEntropyLoss().cuda()
optimizer = torch.optim.SGD(model.parameters(), lr=lr, momentum=0.9,␣
 ↪weight_decay=weight_decay)
#cudnn.benchmark = True

if not os.path.exists('result'):
    os.makedirs('result')
fdir = 'result/'+str(model_name)
if not os.path.exists(fdir):
    os.makedirs(fdir)


for epoch in range(0, epochs):
    adjust_learning_rate(optimizer, epoch)

    train(trainloader, model, criterion, optimizer, epoch)

    # evaluate on test set
    print("Validation starts")
    prec = validate(testloader, model, criterion)

    # remember best precision and save checkpoint
    is_best = prec > best_prec
    best_prec = max(prec,best_prec)
    print('best acc: {:1f}'.format(best_prec))
```

```
    save_checkpoint({
        'epoch': epoch + 1,
        'state_dict': model.state_dict(),
        'best_prec': best_prec,
        'optimizer': optimizer.state_dict(),
    }, is_best, fdir)
```

```
Epoch: [0][0/391]       Time 1.781 (1.781)      Data 0.321 (0.321)      Loss
2.5837 (2.5837)    Prec 10.156% (10.156%)
Epoch: [0][100/391]     Time 0.053 (0.072)      Data 0.002 (0.006)      Loss
2.2573 (2.8469)    Prec 10.938% (11.595%)
Epoch: [0][200/391]     Time 0.054 (0.064)      Data 0.002 (0.004)      Loss
2.0829 (2.5452)    Prec 24.219% (14.607%)
Epoch: [0][300/391]     Time 0.051 (0.061)      Data 0.002 (0.004)      Loss
1.8820 (2.3732)    Prec 28.906% (17.478%)
Validation starts
Test: [0/79]    Time 0.310 (0.310)      Loss 1.9007 (1.9007)    Prec 32.812%
(32.812%)
 * Prec 29.860%
best acc: 29.860000
Epoch: [1][0/391]       Time 0.459 (0.459)      Data 0.419 (0.419)      Loss
1.8375 (1.8375)    Prec 32.812% (32.812%)
Epoch: [1][100/391]     Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
1.8026 (1.8494)    Prec 32.812% (29.486%)
Epoch: [1][200/391]     Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
1.7142 (1.8240)    Prec 37.500% (30.962%)
Epoch: [1][300/391]     Time 0.063 (0.056)      Data 0.002 (0.004)      Loss
1.5488 (1.7757)    Prec 44.531% (32.976%)
Validation starts
Test: [0/79]    Time 0.425 (0.425)      Loss 1.5969 (1.5969)    Prec 39.062%
(39.062%)
 * Prec 39.060%
best acc: 39.060000
Epoch: [2][0/391]       Time 0.416 (0.416)      Data 0.373 (0.373)      Loss
1.8369 (1.8369)    Prec 33.594% (33.594%)
Epoch: [2][100/391]     Time 0.055 (0.059)      Data 0.004 (0.007)      Loss
1.4863 (1.5287)    Prec 44.531% (43.588%)
Epoch: [2][200/391]     Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
1.5539 (1.4937)    Prec 45.312% (44.881%)
Epoch: [2][300/391]     Time 0.048 (0.056)      Data 0.003 (0.004)      Loss
1.1131 (1.4488)    Prec 58.594% (46.686%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 1.2639 (1.2639)    Prec 56.250%
(56.250%)
 * Prec 50.460%
best acc: 50.460000
Epoch: [3][0/391]       Time 0.455 (0.455)      Data 0.397 (0.397)      Loss
```

```
1.3070 (1.3070)    Prec 46.875% (46.875%)
Epoch: [3][100/391]     Time 0.053 (0.060)      Data 0.002 (0.008)      Loss
1.2008 (1.2424)    Prec 61.719% (55.577%)
Epoch: [3][200/391]     Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
1.0653 (1.2099)    Prec 64.844% (56.782%)
Epoch: [3][300/391]     Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
1.0403 (1.1898)    Prec 64.062% (57.483%)
Validation starts
Test: [0/79]    Time 0.345 (0.345)      Loss 1.0970 (1.0970)    Prec 58.594%
(58.594%)
 * Prec 59.250%
best acc: 59.250000
Epoch: [4][0/391]       Time 0.408 (0.408)      Data 0.366 (0.366)      Loss
1.1569 (1.1569)    Prec 57.031% (57.031%)
Epoch: [4][100/391]     Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.9830 (1.0352)    Prec 62.500% (63.444%)
Epoch: [4][200/391]     Time 0.056 (0.057)      Data 0.006 (0.005)      Loss
0.9421 (1.0284)    Prec 70.312% (63.732%)
Epoch: [4][300/391]     Time 0.060 (0.057)      Data 0.002 (0.004)      Loss
0.9575 (1.0076)    Prec 67.188% (64.431%)
Validation starts
Test: [0/79]    Time 0.353 (0.353)      Loss 0.8384 (0.8384)    Prec 65.625%
(65.625%)
 * Prec 66.440%
best acc: 66.440000
Epoch: [5][0/391]       Time 0.463 (0.463)      Data 0.424 (0.424)      Loss
0.6622 (0.6622)    Prec 74.219% (74.219%)
Epoch: [5][100/391]     Time 0.056 (0.060)      Data 0.002 (0.008)      Loss
0.9815 (0.8857)    Prec 60.156% (69.222%)
Epoch: [5][200/391]     Time 0.056 (0.058)      Data 0.002 (0.005)      Loss
1.0411 (0.8728)    Prec 61.719% (69.481%)
Epoch: [5][300/391]     Time 0.055 (0.057)      Data 0.004 (0.005)      Loss
0.8665 (0.8636)    Prec 67.969% (69.866%)
Validation starts
Test: [0/79]    Time 0.330 (0.330)      Loss 0.8184 (0.8184)    Prec 71.094%
(71.094%)
 * Prec 68.360%
best acc: 68.360000
Epoch: [6][0/391]       Time 0.416 (0.416)      Data 0.373 (0.373)      Loss
0.7553 (0.7553)    Prec 72.656% (72.656%)
Epoch: [6][100/391]     Time 0.053 (0.058)      Data 0.002 (0.006)      Loss
0.8203 (0.7738)    Prec 67.969% (73.383%)
Epoch: [6][200/391]     Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.8744 (0.7684)    Prec 69.531% (73.383%)
Epoch: [6][300/391]     Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.8393 (0.7567)    Prec 72.656% (73.866%)
Validation starts
Test: [0/79]    Time 0.358 (0.358)      Loss 0.7248 (0.7248)    Prec 72.656%
```

```
(72.656%)
 * Prec 72.240%
best acc: 72.240000
Epoch: [7][0/391]       Time 0.474 (0.474)      Data 0.429 (0.429)      Loss
0.5844 (0.5844)    Prec 78.906% (78.906%)
Epoch: [7][100/391]     Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.6762 (0.6938)    Prec 76.562% (76.323%)
Epoch: [7][200/391]     Time 0.049 (0.057)      Data 0.004 (0.005)      Loss
0.6590 (0.6911)    Prec 80.469% (76.185%)
Epoch: [7][300/391]     Time 0.060 (0.057)      Data 0.002 (0.004)      Loss
0.5830 (0.6870)    Prec 80.469% (76.280%)
Validation starts
Test: [0/79]    Time 0.408 (0.408)      Loss 0.6462 (0.6462)    Prec 73.438%
(73.438%)
 * Prec 76.560%
best acc: 76.560000
Epoch: [8][0/391]       Time 0.403 (0.403)      Data 0.364 (0.364)      Loss
0.6550 (0.6550)    Prec 76.562% (76.562%)
Epoch: [8][100/391]     Time 0.054 (0.058)      Data 0.003 (0.005)      Loss
0.5262 (0.6353)    Prec 83.594% (78.318%)
Epoch: [8][200/391]     Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.5146 (0.6299)    Prec 83.594% (78.319%)
Epoch: [8][300/391]     Time 0.051 (0.056)      Data 0.002 (0.003)      Loss
0.6019 (0.6283)    Prec 78.906% (78.460%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.5733 (0.5733)    Prec 78.906%
(78.906%)
 * Prec 77.450%
best acc: 77.450000
Epoch: [9][0/391]       Time 0.428 (0.428)      Data 0.374 (0.374)      Loss
0.8056 (0.8056)    Prec 76.562% (76.562%)
Epoch: [9][100/391]     Time 0.057 (0.059)      Data 0.002 (0.006)      Loss
0.4364 (0.5775)    Prec 83.594% (80.128%)
Epoch: [9][200/391]     Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.5063 (0.5810)    Prec 82.812% (80.026%)
Epoch: [9][300/391]     Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.5492 (0.5794)    Prec 81.250% (80.165%)
Validation starts
Test: [0/79]    Time 0.366 (0.366)      Loss 0.5345 (0.5345)    Prec 82.031%
(82.031%)
 * Prec 78.320%
best acc: 78.320000
Epoch: [10][0/391]      Time 0.358 (0.358)      Data 0.314 (0.314)      Loss
0.7120 (0.7120)    Prec 75.781% (75.781%)
Epoch: [10][100/391]    Time 0.050 (0.059)      Data 0.002 (0.006)      Loss
0.5021 (0.5385)    Prec 80.469% (81.753%)
Epoch: [10][200/391]    Time 0.055 (0.057)      Data 0.007 (0.004)      Loss
0.3830 (0.5379)    Prec 87.500% (81.759%)
```

```
Epoch: [10][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.5552 (0.5344)    Prec 82.031% (81.813%)
Validation starts
Test: [0/79]    Time 0.332 (0.332)      Loss 0.5034 (0.5034)    Prec 79.688%
(79.688%)
 * Prec 79.100%
best acc: 79.100000
Epoch: [11][0/391]      Time 0.388 (0.388)      Data 0.343 (0.343)      Loss
0.4410 (0.4410)    Prec 84.375% (84.375%)
Epoch: [11][100/391]    Time 0.063 (0.059)      Data 0.003 (0.007)      Loss
0.6083 (0.4970)    Prec 79.688% (82.998%)
Epoch: [11][200/391]    Time 0.058 (0.057)      Data 0.001 (0.005)      Loss
0.4802 (0.4999)    Prec 85.156% (82.844%)
Epoch: [11][300/391]    Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.5091 (0.4971)    Prec 81.250% (82.924%)
Validation starts
Test: [0/79]    Time 0.309 (0.309)      Loss 0.6643 (0.6643)    Prec 78.125%
(78.125%)
 * Prec 78.060%
best acc: 79.100000
Epoch: [12][0/391]      Time 0.344 (0.344)      Data 0.304 (0.304)      Loss
0.6567 (0.6567)    Prec 81.250% (81.250%)
Epoch: [12][100/391]    Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.5939 (0.4644)    Prec 80.469% (84.143%)
Epoch: [12][200/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.6521 (0.4662)    Prec 75.781% (84.037%)
Epoch: [12][300/391]    Time 0.057 (0.056)      Data 0.001 (0.003)      Loss
0.4439 (0.4706)    Prec 87.500% (83.983%)
Validation starts
Test: [0/79]    Time 0.303 (0.303)      Loss 0.6385 (0.6385)    Prec 79.688%
(79.688%)
 * Prec 78.610%
best acc: 79.100000
Epoch: [13][0/391]      Time 0.352 (0.352)      Data 0.312 (0.312)      Loss
0.6174 (0.6174)    Prec 79.688% (79.688%)
Epoch: [13][100/391]    Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.5092 (0.4418)    Prec 81.250% (85.110%)
Epoch: [13][200/391]    Time 0.060 (0.056)      Data 0.013 (0.004)      Loss
0.3296 (0.4398)    Prec 90.625% (85.032%)
Epoch: [13][300/391]    Time 0.049 (0.056)      Data 0.002 (0.004)      Loss
0.4223 (0.4444)    Prec 82.031% (84.757%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.5266 (0.5266)    Prec 78.906%
(78.906%)
 * Prec 79.380%
best acc: 79.380000
Epoch: [14][0/391]      Time 0.464 (0.464)      Data 0.407 (0.407)      Loss
0.3724 (0.3724)    Prec 86.719% (86.719%)
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Epoch: [14][100/391]    Time 0.059 (0.059)      Data 0.002 (0.007)      Loss
0.2961 (0.4114)    Prec 89.062% (85.736%)
Epoch: [14][200/391]    Time 0.063 (0.057)      Data 0.002 (0.005)      Loss
0.4882 (0.4147)    Prec 80.469% (85.724%)
Epoch: [14][300/391]    Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.3819 (0.4202)    Prec 89.062% (85.488%)
Validation starts
Test: [0/79]    Time 0.353 (0.353)      Loss 0.4824 (0.4824)    Prec 83.594%
(83.594%)
 * Prec 83.270%
best acc: 83.270000
Epoch: [15][0/391]      Time 0.403 (0.403)      Data 0.349 (0.349)      Loss
0.3072 (0.3072)    Prec 89.844% (89.844%)
Epoch: [15][100/391]    Time 0.053 (0.058)      Data 0.002 (0.006)      Loss
0.3990 (0.3841)    Prec 88.281% (87.036%)
Epoch: [15][200/391]    Time 0.045 (0.057)      Data 0.003 (0.004)      Loss
0.4307 (0.3916)    Prec 86.719% (86.758%)
Epoch: [15][300/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.5662 (0.3958)    Prec 82.812% (86.566%)
Validation starts
Test: [0/79]    Time 0.367 (0.367)      Loss 0.4040 (0.4040)    Prec 85.938%
(85.938%)
 * Prec 83.780%
best acc: 83.780000
Epoch: [16][0/391]      Time 0.393 (0.393)      Data 0.354 (0.354)      Loss
0.3631 (0.3631)    Prec 83.594% (83.594%)
Epoch: [16][100/391]    Time 0.051 (0.059)      Data 0.003 (0.007)      Loss
0.4941 (0.3713)    Prec 78.906% (87.229%)
Epoch: [16][200/391]    Time 0.051 (0.057)      Data 0.002 (0.005)      Loss
0.3459 (0.3777)    Prec 89.844% (87.072%)
Epoch: [16][300/391]    Time 0.058 (0.057)      Data 0.002 (0.004)      Loss
0.4068 (0.3771)    Prec 82.812% (87.093%)
Validation starts
Test: [0/79]    Time 0.303 (0.303)      Loss 0.5261 (0.5261)    Prec 80.469%
(80.469%)
 * Prec 81.750%
best acc: 83.780000
Epoch: [17][0/391]      Time 0.395 (0.395)      Data 0.348 (0.348)      Loss
0.2437 (0.2437)    Prec 90.625% (90.625%)
Epoch: [17][100/391]    Time 0.058 (0.059)      Data 0.002 (0.006)      Loss
0.2921 (0.3397)    Prec 92.969% (88.320%)
Epoch: [17][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.3068 (0.3506)    Prec 89.844% (87.900%)
Epoch: [17][300/391]    Time 0.053 (0.057)      Data 0.001 (0.004)      Loss
0.3201 (0.3552)    Prec 89.062% (87.705%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.4274 (0.4274)    Prec 85.156%
(85.156%)
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 * Prec 82.560%
best acc: 83.780000
Epoch: [18][0/391]      Time 0.385 (0.385)      Data 0.341 (0.341)      Loss
0.2157 (0.2157)    Prec 94.531% (94.531%)
Epoch: [18][100/391]    Time 0.048 (0.059)      Data 0.002 (0.007)      Loss
0.4596 (0.3298)    Prec 81.250% (88.622%)
Epoch: [18][200/391]    Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.3240 (0.3352)    Prec 89.062% (88.394%)
Epoch: [18][300/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.2178 (0.3356)    Prec 91.406% (88.434%)
Validation starts
Test: [0/79]    Time 0.310 (0.310)      Loss 0.3356 (0.3356)    Prec 90.625%
(90.625%)
 * Prec 85.320%
best acc: 85.320000
Epoch: [19][0/391]      Time 0.379 (0.379)      Data 0.333 (0.333)      Loss
0.2357 (0.2357)    Prec 89.062% (89.062%)
Epoch: [19][100/391]    Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.5170 (0.3232)    Prec 85.156% (89.086%)
Epoch: [19][200/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.3334 (0.3235)    Prec 88.281% (88.958%)
Epoch: [19][300/391]    Time 0.053 (0.056)      Data 0.002 (0.003)      Loss
0.4362 (0.3273)    Prec 85.938% (88.787%)
Validation starts
Test: [0/79]    Time 0.377 (0.377)      Loss 0.3044 (0.3044)    Prec 91.406%
(91.406%)
 * Prec 85.320%
best acc: 85.320000
Epoch: [20][0/391]      Time 0.419 (0.419)      Data 0.380 (0.380)      Loss
0.3860 (0.3860)    Prec 86.719% (86.719%)
Epoch: [20][100/391]    Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.3117 (0.3100)    Prec 89.062% (89.349%)
Epoch: [20][200/391]    Time 0.056 (0.057)      Data 0.006 (0.004)      Loss
0.4097 (0.3147)    Prec 83.594% (89.199%)
Epoch: [20][300/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.4106 (0.3152)    Prec 85.156% (89.174%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.2822 (0.2822)    Prec 89.844%
(89.844%)
 * Prec 84.070%
best acc: 85.320000
Epoch: [21][0/391]      Time 0.396 (0.396)      Data 0.348 (0.348)      Loss
0.2617 (0.2617)    Prec 88.281% (88.281%)
Epoch: [21][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.3252 (0.2957)    Prec 85.156% (89.596%)
Epoch: [21][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.3361 (0.2982)    Prec 91.406% (89.638%)
Epoch: [21][300/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
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0.2255 (0.2990)    Prec 91.406% (89.623%)
Validation starts
Test: [0/79]    Time 0.376 (0.376)      Loss 0.3102 (0.3102)    Prec 89.844%
(89.844%)
 * Prec 86.050%
best acc: 86.050000
Epoch: [22][0/391]      Time 0.394 (0.394)      Data 0.353 (0.353)      Loss
0.2498 (0.2498)    Prec 92.188% (92.188%)
Epoch: [22][100/391]    Time 0.077 (0.059)      Data 0.002 (0.007)      Loss
0.3369 (0.2739)    Prec 87.500% (90.756%)
Epoch: [22][200/391]    Time 0.056 (0.057)      Data 0.003 (0.005)      Loss
0.2310 (0.2836)    Prec 89.844% (90.345%)
Epoch: [22][300/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.3379 (0.2876)    Prec 87.500% (90.070%)
Validation starts
Test: [0/79]    Time 0.418 (0.418)      Loss 0.3012 (0.3012)    Prec 92.188%
(92.188%)
 * Prec 86.090%
best acc: 86.090000
Epoch: [23][0/391]      Time 0.451 (0.451)      Data 0.396 (0.396)      Loss
0.2165 (0.2165)    Prec 93.750% (93.750%)
Epoch: [23][100/391]    Time 0.050 (0.060)      Data 0.002 (0.007)      Loss
0.3360 (0.2687)    Prec 89.844% (90.679%)
Epoch: [23][200/391]    Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.2665 (0.2720)    Prec 90.625% (90.590%)
Epoch: [23][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.3443 (0.2714)    Prec 83.594% (90.612%)
Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.3060 (0.3060)    Prec 90.625%
(90.625%)
 * Prec 86.580%
best acc: 86.580000
Epoch: [24][0/391]      Time 0.419 (0.419)      Data 0.375 (0.375)      Loss
0.2162 (0.2162)    Prec 93.750% (93.750%)
Epoch: [24][100/391]    Time 0.056 (0.059)      Data 0.004 (0.007)      Loss
0.1890 (0.2478)    Prec 94.531% (91.321%)
Epoch: [24][200/391]    Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.3586 (0.2534)    Prec 89.844% (91.107%)
Epoch: [24][300/391]    Time 0.051 (0.056)      Data 0.011 (0.004)      Loss
0.3048 (0.2577)    Prec 91.406% (91.058%)
Validation starts
Test: [0/79]    Time 0.357 (0.357)      Loss 0.2743 (0.2743)    Prec 90.625%
(90.625%)
 * Prec 86.150%
best acc: 86.580000
Epoch: [25][0/391]      Time 0.366 (0.366)      Data 0.322 (0.322)      Loss
0.1686 (0.1686)    Prec 92.969% (92.969%)
Epoch: [25][100/391]    Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
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0.1357 (0.2439)    Prec 95.312% (91.716%)
Epoch: [25][200/391]    Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.3510 (0.2466)    Prec 89.062% (91.628%)
Epoch: [25][300/391]    Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.3029 (0.2478)    Prec 87.500% (91.515%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.3252 (0.3252)    Prec 88.281%
(88.281%)
 * Prec 86.110%
best acc: 86.580000
Epoch: [26][0/391]      Time 0.359 (0.359)      Data 0.320 (0.320)      Loss
0.2306 (0.2306)    Prec 91.406% (91.406%)
Epoch: [26][100/391]    Time 0.046 (0.058)      Data 0.004 (0.006)      Loss
0.2186 (0.2284)    Prec 93.750% (92.249%)
Epoch: [26][200/391]    Time 0.057 (0.057)      Data 0.004 (0.004)      Loss
0.2719 (0.2401)    Prec 92.188% (91.799%)
Epoch: [26][300/391]    Time 0.066 (0.057)      Data 0.015 (0.004)      Loss
0.1983 (0.2446)    Prec 92.969% (91.593%)
Validation starts
Test: [0/79]    Time 0.357 (0.357)      Loss 0.3406 (0.3406)    Prec 89.844%
(89.844%)
 * Prec 87.510%
best acc: 87.510000
Epoch: [27][0/391]      Time 0.442 (0.442)      Data 0.393 (0.393)      Loss
0.1528 (0.1528)    Prec 93.750% (93.750%)
Epoch: [27][100/391]    Time 0.055 (0.059)      Data 0.015 (0.007)      Loss
0.2164 (0.2283)    Prec 92.188% (92.334%)
Epoch: [27][200/391]    Time 0.060 (0.058)      Data 0.002 (0.005)      Loss
0.2387 (0.2261)    Prec 92.969% (92.343%)
Epoch: [27][300/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.3883 (0.2276)    Prec 86.719% (92.255%)
Validation starts
Test: [0/79]    Time 0.312 (0.312)      Loss 0.3422 (0.3422)    Prec 89.844%
(89.844%)
 * Prec 87.170%
best acc: 87.510000
Epoch: [28][0/391]      Time 0.459 (0.459)      Data 0.408 (0.408)      Loss
0.2602 (0.2602)    Prec 90.625% (90.625%)
Epoch: [28][100/391]    Time 0.061 (0.060)      Data 0.002 (0.007)      Loss
0.1522 (0.2098)    Prec 94.531% (92.737%)
Epoch: [28][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.2501 (0.2162)    Prec 90.625% (92.479%)
Epoch: [28][300/391]    Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.1625 (0.2239)    Prec 94.531% (92.167%)
Validation starts
Test: [0/79]    Time 0.369 (0.369)      Loss 0.3436 (0.3436)    Prec 89.844%
(89.844%)
 * Prec 86.200%
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best acc: 87.510000
Epoch: [29][0/391]      Time 0.377 (0.377)      Data 0.336 (0.336)      Loss
0.2603 (0.2603)    Prec 92.969% (92.969%)
Epoch: [29][100/391]    Time 0.050 (0.058)      Data 0.002 (0.006)      Loss
0.1183 (0.2077)    Prec 96.094% (92.853%)
Epoch: [29][200/391]    Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.2327 (0.2138)    Prec 89.844% (92.452%)
Epoch: [29][300/391]    Time 0.059 (0.056)      Data 0.002 (0.004)      Loss
0.2262 (0.2155)    Prec 92.969% (92.483%)
Validation starts
Test: [0/79]    Time 0.378 (0.378)      Loss 0.2685 (0.2685)    Prec 91.406%
(91.406%)
 * Prec 87.710%
best acc: 87.710000
Epoch: [30][0/391]      Time 0.440 (0.440)      Data 0.400 (0.400)      Loss
0.1782 (0.1782)    Prec 92.188% (92.188%)
Epoch: [30][100/391]    Time 0.060 (0.059)      Data 0.002 (0.007)      Loss
0.1856 (0.1946)    Prec 92.188% (93.239%)
Epoch: [30][200/391]    Time 0.067 (0.058)      Data 0.003 (0.006)      Loss
0.0796 (0.1995)    Prec 97.656% (93.012%)
Epoch: [30][300/391]    Time 0.062 (0.057)      Data 0.014 (0.005)      Loss
0.2486 (0.2027)    Prec 91.406% (92.888%)
Validation starts
Test: [0/79]    Time 0.282 (0.282)      Loss 0.3100 (0.3100)    Prec 91.406%
(91.406%)
 * Prec 87.420%
best acc: 87.710000
Epoch: [31][0/391]      Time 0.409 (0.409)      Data 0.364 (0.364)      Loss
0.2839 (0.2839)    Prec 92.188% (92.188%)
Epoch: [31][100/391]    Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.1410 (0.1801)    Prec 96.875% (93.920%)
Epoch: [31][200/391]    Time 0.060 (0.058)      Data 0.004 (0.006)      Loss
0.3327 (0.1890)    Prec 89.062% (93.552%)
Epoch: [31][300/391]    Time 0.046 (0.057)      Data 0.006 (0.005)      Loss
0.4086 (0.1930)    Prec 87.500% (93.361%)
Validation starts
Test: [0/79]    Time 0.339 (0.339)      Loss 0.2685 (0.2685)    Prec 91.406%
(91.406%)
 * Prec 86.890%
best acc: 87.710000
Epoch: [32][0/391]      Time 0.479 (0.479)      Data 0.435 (0.435)      Loss
0.1471 (0.1471)    Prec 92.969% (92.969%)
Epoch: [32][100/391]    Time 0.054 (0.060)      Data 0.003 (0.008)      Loss
0.1938 (0.1904)    Prec 92.188% (93.479%)
Epoch: [32][200/391]    Time 0.049 (0.058)      Data 0.002 (0.006)      Loss
0.1794 (0.1876)    Prec 93.750% (93.482%)
Epoch: [32][300/391]    Time 0.063 (0.057)      Data 0.002 (0.005)      Loss
0.1532 (0.1962)    Prec 93.750% (93.249%)
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Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.4121 (0.4121)    Prec 88.281%
(88.281%)
 * Prec 87.070%
best acc: 87.710000
Epoch: [33][0/391]      Time 0.376 (0.376)      Data 0.337 (0.337)      Loss
0.1590 (0.1590)    Prec 92.969% (92.969%)
Epoch: [33][100/391]    Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.1645 (0.1835)    Prec 95.312% (93.765%)
Epoch: [33][200/391]    Time 0.066 (0.057)      Data 0.002 (0.004)      Loss
0.1820 (0.1831)    Prec 92.188% (93.703%)
Epoch: [33][300/391]    Time 0.054 (0.056)      Data 0.004 (0.004)      Loss
0.1549 (0.1840)    Prec 94.531% (93.646%)
Validation starts
Test: [0/79]    Time 0.375 (0.375)      Loss 0.2643 (0.2643)    Prec 92.188%
(92.188%)
 * Prec 87.030%
best acc: 87.710000
Epoch: [34][0/391]      Time 0.455 (0.455)      Data 0.410 (0.410)      Loss
0.0923 (0.0923)    Prec 97.656% (97.656%)
Epoch: [34][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.1506 (0.1601)    Prec 96.875% (94.392%)
Epoch: [34][200/391]    Time 0.088 (0.058)      Data 0.002 (0.005)      Loss
0.1969 (0.1698)    Prec 89.844% (94.080%)
Epoch: [34][300/391]    Time 0.045 (0.057)      Data 0.002 (0.005)      Loss
0.0853 (0.1779)    Prec 97.656% (93.817%)
Validation starts
Test: [0/79]    Time 0.393 (0.393)      Loss 0.3296 (0.3296)    Prec 86.719%
(86.719%)
 * Prec 86.390%
best acc: 87.710000
Epoch: [35][0/391]      Time 0.414 (0.414)      Data 0.368 (0.368)      Loss
0.1594 (0.1594)    Prec 93.750% (93.750%)
Epoch: [35][100/391]    Time 0.051 (0.059)      Data 0.002 (0.007)      Loss
0.1173 (0.1736)    Prec 96.094% (93.688%)
Epoch: [35][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1304 (0.1724)    Prec 94.531% (93.820%)
Epoch: [35][300/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.1243 (0.1749)    Prec 95.312% (93.753%)
Validation starts
Test: [0/79]    Time 0.339 (0.339)      Loss 0.2727 (0.2727)    Prec 91.406%
(91.406%)
 * Prec 87.150%
best acc: 87.710000
Epoch: [36][0/391]      Time 0.469 (0.469)      Data 0.415 (0.415)      Loss
0.1967 (0.1967)    Prec 93.750% (93.750%)
Epoch: [36][100/391]    Time 0.061 (0.059)      Data 0.002 (0.007)      Loss
0.3519 (0.1559)    Prec 86.719% (94.524%)
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Epoch: [36][200/391]    Time 0.046 (0.057)      Data 0.005 (0.005)      Loss
0.2757 (0.1622)    Prec 90.625% (94.298%)
Epoch: [36][300/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1699 (0.1690)    Prec 92.188% (94.072%)
Validation starts
Test: [0/79]    Time 0.359 (0.359)      Loss 0.2416 (0.2416)    Prec 92.188%
(92.188%)
 * Prec 87.640%
best acc: 87.710000
Epoch: [37][0/391]      Time 0.439 (0.439)      Data 0.400 (0.400)      Loss
0.1257 (0.1257)    Prec 96.094% (96.094%)
Epoch: [37][100/391]    Time 0.060 (0.059)      Data 0.005 (0.007)      Loss
0.2052 (0.1633)    Prec 93.750% (94.361%)
Epoch: [37][200/391]    Time 0.054 (0.057)      Data 0.006 (0.005)      Loss
0.1985 (0.1640)    Prec 92.969% (94.279%)
Epoch: [37][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1730 (0.1670)    Prec 92.188% (94.191%)
Validation starts
Test: [0/79]    Time 0.339 (0.339)      Loss 0.3023 (0.3023)    Prec 91.406%
(91.406%)
 * Prec 87.320%
best acc: 87.710000
Epoch: [38][0/391]      Time 0.426 (0.426)      Data 0.387 (0.387)      Loss
0.1705 (0.1705)    Prec 92.969% (92.969%)
Epoch: [38][100/391]    Time 0.056 (0.060)      Data 0.002 (0.007)      Loss
0.1341 (0.1514)    Prec 96.875% (94.848%)
Epoch: [38][200/391]    Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0835 (0.1565)    Prec 97.656% (94.582%)
Epoch: [38][300/391]    Time 0.047 (0.057)      Data 0.002 (0.004)      Loss
0.1383 (0.1600)    Prec 94.531% (94.474%)
Validation starts
Test: [0/79]    Time 0.396 (0.396)      Loss 0.2259 (0.2259)    Prec 93.750%
(93.750%)
 * Prec 88.040%
best acc: 88.040000
Epoch: [39][0/391]      Time 0.460 (0.460)      Data 0.418 (0.418)      Loss
0.1394 (0.1394)    Prec 95.312% (95.312%)
Epoch: [39][100/391]    Time 0.054 (0.060)      Data 0.002 (0.007)      Loss
0.2289 (0.1459)    Prec 89.062% (95.026%)
Epoch: [39][200/391]    Time 0.051 (0.057)      Data 0.009 (0.005)      Loss
0.0721 (0.1559)    Prec 97.656% (94.605%)
Epoch: [39][300/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.2471 (0.1579)    Prec 92.969% (94.516%)
Validation starts
Test: [0/79]    Time 0.322 (0.322)      Loss 0.2726 (0.2726)    Prec 90.625%
(90.625%)
 * Prec 87.190%
best acc: 88.040000
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Epoch: [40][0/391]      Time 0.466 (0.466)      Data 0.426 (0.426)      Loss
0.1840 (0.1840)    Prec 95.312% (95.312%)
Epoch: [40][100/391]    Time 0.054 (0.059)      Data 0.002 (0.008)      Loss
0.0879 (0.1461)    Prec 96.094% (94.856%)
Epoch: [40][200/391]    Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.1123 (0.1474)    Prec 97.656% (94.776%)
Epoch: [40][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.2125 (0.1494)    Prec 92.969% (94.765%)
Validation starts
Test: [0/79]    Time 0.472 (0.472)      Loss 0.3103 (0.3103)    Prec 89.844%
(89.844%)
 * Prec 87.430%
best acc: 88.040000
Epoch: [41][0/391]      Time 0.454 (0.454)      Data 0.411 (0.411)      Loss
0.1198 (0.1198)    Prec 96.875% (96.875%)
Epoch: [41][100/391]    Time 0.058 (0.059)      Data 0.002 (0.007)      Loss
0.1284 (0.1317)    Prec 95.312% (95.467%)
Epoch: [41][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1363 (0.1418)    Prec 92.969% (95.138%)
Epoch: [41][300/391]    Time 0.052 (0.056)      Data 0.002 (0.004)      Loss
0.2382 (0.1415)    Prec 93.750% (95.149%)
Validation starts
Test: [0/79]    Time 0.352 (0.352)      Loss 0.1602 (0.1602)    Prec 92.969%
(92.969%)
 * Prec 87.990%
best acc: 88.040000
Epoch: [42][0/391]      Time 0.316 (0.316)      Data 0.272 (0.272)      Loss
0.0918 (0.0918)    Prec 96.875% (96.875%)
Epoch: [42][100/391]    Time 0.052 (0.059)      Data 0.002 (0.006)      Loss
0.1720 (0.1351)    Prec 96.094% (95.189%)
Epoch: [42][200/391]    Time 0.055 (0.057)      Data 0.009 (0.004)      Loss
0.1954 (0.1403)    Prec 92.188% (95.052%)
Epoch: [42][300/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.1221 (0.1398)    Prec 94.531% (95.089%)
Validation starts
Test: [0/79]    Time 0.347 (0.347)      Loss 0.3676 (0.3676)    Prec 88.281%
(88.281%)
 * Prec 87.940%
best acc: 88.040000
Epoch: [43][0/391]      Time 0.484 (0.484)      Data 0.445 (0.445)      Loss
0.0822 (0.0822)    Prec 96.875% (96.875%)
Epoch: [43][100/391]    Time 0.052 (0.059)      Data 0.002 (0.007)      Loss
0.1292 (0.1308)    Prec 96.094% (95.699%)
Epoch: [43][200/391]    Time 0.065 (0.057)      Data 0.015 (0.005)      Loss
0.0844 (0.1321)    Prec 96.094% (95.573%)
Epoch: [43][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1829 (0.1346)    Prec 92.969% (95.357%)
Validation starts
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Test: [0/79]    Time 0.287 (0.287)      Loss 0.2993 (0.2993)    Prec 91.406%
(91.406%)
 * Prec 87.780%
best acc: 88.040000
Epoch: [44][0/391]      Time 0.475 (0.475)      Data 0.431 (0.431)      Loss
0.0933 (0.0933)    Prec 97.656% (97.656%)
Epoch: [44][100/391]    Time 0.051 (0.060)      Data 0.003 (0.008)      Loss
0.0925 (0.1267)    Prec 96.875% (95.537%)
Epoch: [44][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1491 (0.1289)    Prec 96.094% (95.491%)
Epoch: [44][300/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.1153 (0.1342)    Prec 94.531% (95.266%)
Validation starts
Test: [0/79]    Time 0.419 (0.419)      Loss 0.1778 (0.1778)    Prec 93.750%
(93.750%)
 * Prec 88.830%
best acc: 88.830000
Epoch: [45][0/391]      Time 0.460 (0.460)      Data 0.416 (0.416)      Loss
0.0849 (0.0849)    Prec 97.656% (97.656%)
Epoch: [45][100/391]    Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.1311 (0.1241)    Prec 96.094% (95.684%)
Epoch: [45][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1465 (0.1276)    Prec 95.312% (95.511%)
Epoch: [45][300/391]    Time 0.061 (0.056)      Data 0.002 (0.004)      Loss
0.0691 (0.1303)    Prec 96.875% (95.468%)
Validation starts
Test: [0/79]    Time 0.356 (0.356)      Loss 0.2536 (0.2536)    Prec 90.625%
(90.625%)
 * Prec 88.740%
best acc: 88.830000
Epoch: [46][0/391]      Time 0.494 (0.494)      Data 0.438 (0.438)      Loss
0.0743 (0.0743)    Prec 97.656% (97.656%)
Epoch: [46][100/391]    Time 0.054 (0.060)      Data 0.002 (0.007)      Loss
0.1659 (0.1232)    Prec 91.406% (95.668%)
Epoch: [46][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.1680 (0.1267)    Prec 93.750% (95.503%)
Epoch: [46][300/391]    Time 0.062 (0.057)      Data 0.002 (0.004)      Loss
0.1659 (0.1273)    Prec 92.969% (95.502%)
Validation starts
Test: [0/79]    Time 0.341 (0.341)      Loss 0.2136 (0.2136)    Prec 91.406%
(91.406%)
 * Prec 87.920%
best acc: 88.830000
Epoch: [47][0/391]      Time 0.372 (0.372)      Data 0.319 (0.319)      Loss
0.1122 (0.1122)    Prec 96.094% (96.094%)
Epoch: [47][100/391]    Time 0.060 (0.058)      Data 0.002 (0.006)      Loss
0.1967 (0.1161)    Prec 92.188% (95.939%)
Epoch: [47][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
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0.1136 (0.1196)    Prec 96.094% (95.767%)
Epoch: [47][300/391]    Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.0951 (0.1235)    Prec 96.875% (95.640%)
Validation starts
Test: [0/79]    Time 0.358 (0.358)      Loss 0.3221 (0.3221)    Prec 89.844%
(89.844%)
 * Prec 88.230%
best acc: 88.830000
Epoch: [48][0/391]      Time 0.368 (0.368)      Data 0.325 (0.325)      Loss
0.0697 (0.0697)    Prec 96.875% (96.875%)
Epoch: [48][100/391]    Time 0.057 (0.059)      Data 0.002 (0.006)      Loss
0.0806 (0.1202)    Prec 97.656% (95.916%)
Epoch: [48][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0826 (0.1227)    Prec 96.875% (95.740%)
Epoch: [48][300/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.1851 (0.1227)    Prec 94.531% (95.743%)
Validation starts
Test: [0/79]    Time 0.327 (0.327)      Loss 0.3369 (0.3369)    Prec 89.844%
(89.844%)
 * Prec 88.510%
best acc: 88.830000
Epoch: [49][0/391]      Time 0.331 (0.331)      Data 0.290 (0.290)      Loss
0.0929 (0.0929)    Prec 95.312% (95.312%)
Epoch: [49][100/391]    Time 0.061 (0.058)      Data 0.002 (0.006)      Loss
0.0488 (0.1126)    Prec 98.438% (96.179%)
Epoch: [49][200/391]    Time 0.053 (0.057)      Data 0.002 (0.004)      Loss
0.0566 (0.1132)    Prec 98.438% (96.160%)
Epoch: [49][300/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0845 (0.1217)    Prec 96.875% (95.808%)
Validation starts
Test: [0/79]    Time 0.330 (0.330)      Loss 0.1871 (0.1871)    Prec 92.969%
(92.969%)
 * Prec 88.680%
best acc: 88.830000
Epoch: [50][0/391]      Time 0.395 (0.395)      Data 0.356 (0.356)      Loss
0.0704 (0.0704)    Prec 96.875% (96.875%)
Epoch: [50][100/391]    Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.1204 (0.1087)    Prec 96.094% (96.256%)
Epoch: [50][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0951 (0.1151)    Prec 97.656% (96.032%)
Epoch: [50][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1237 (0.1171)    Prec 96.094% (95.980%)
Validation starts
Test: [0/79]    Time 0.359 (0.359)      Loss 0.2957 (0.2957)    Prec 89.844%
(89.844%)
 * Prec 89.030%
best acc: 89.030000
Epoch: [51][0/391]      Time 0.409 (0.409)      Data 0.355 (0.355)      Loss
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0.0885 (0.0885)    Prec 98.438% (98.438%)
Epoch: [51][100/391]    Time 0.059 (0.059)      Data 0.002 (0.006)      Loss
0.1145 (0.0961)    Prec 95.312% (96.728%)
Epoch: [51][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.1255 (0.1089)    Prec 95.312% (96.222%)
Epoch: [51][300/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.1885 (0.1156)    Prec 92.969% (96.021%)
Validation starts
Test: [0/79]    Time 0.387 (0.387)      Loss 0.3171 (0.3171)    Prec 90.625%
(90.625%)
 * Prec 88.830%
best acc: 89.030000
Epoch: [52][0/391]      Time 0.362 (0.362)      Data 0.322 (0.322)      Loss
0.0515 (0.0515)    Prec 98.438% (98.438%)
Epoch: [52][100/391]    Time 0.058 (0.058)      Data 0.002 (0.006)      Loss
0.1800 (0.1022)    Prec 92.969% (96.256%)
Epoch: [52][200/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.1122 (0.1067)    Prec 95.312% (96.222%)
Epoch: [52][300/391]    Time 0.056 (0.056)      Data 0.003 (0.003)      Loss
0.1015 (0.1100)    Prec 96.094% (96.104%)
Validation starts
Test: [0/79]    Time 0.317 (0.317)      Loss 0.2559 (0.2559)    Prec 87.500%
(87.500%)
 * Prec 88.570%
best acc: 89.030000
Epoch: [53][0/391]      Time 0.488 (0.488)      Data 0.441 (0.441)      Loss
0.0665 (0.0665)    Prec 96.875% (96.875%)
Epoch: [53][100/391]    Time 0.055 (0.060)      Data 0.002 (0.007)      Loss
0.0461 (0.1031)    Prec 97.656% (96.481%)
Epoch: [53][200/391]    Time 0.056 (0.057)      Data 0.001 (0.005)      Loss
0.1891 (0.1064)    Prec 93.750% (96.315%)
Epoch: [53][300/391]    Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.1160 (0.1092)    Prec 95.312% (96.231%)
Validation starts
Test: [0/79]    Time 0.349 (0.349)      Loss 0.3886 (0.3886)    Prec 89.844%
(89.844%)
 * Prec 87.930%
best acc: 89.030000
Epoch: [54][0/391]      Time 0.422 (0.422)      Data 0.382 (0.382)      Loss
0.0536 (0.0536)    Prec 97.656% (97.656%)
Epoch: [54][100/391]    Time 0.051 (0.059)      Data 0.008 (0.007)      Loss
0.0880 (0.1019)    Prec 96.094% (96.442%)
Epoch: [54][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0981 (0.1037)    Prec 96.875% (96.447%)
Epoch: [54][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1048 (0.1075)    Prec 97.656% (96.312%)
Validation starts
Test: [0/79]    Time 0.389 (0.389)      Loss 0.1921 (0.1921)    Prec 91.406%
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(91.406%)
 * Prec 88.530%
best acc: 89.030000
Epoch: [55][0/391]      Time 0.420 (0.420)      Data 0.381 (0.381)      Loss
0.0959 (0.0959)    Prec 94.531% (94.531%)
Epoch: [55][100/391]    Time 0.057 (0.059)      Data 0.014 (0.008)      Loss
0.0674 (0.0942)    Prec 98.438% (96.643%)
Epoch: [55][200/391]    Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0839 (0.1009)    Prec 96.875% (96.502%)
Epoch: [55][300/391]    Time 0.056 (0.057)      Data 0.001 (0.005)      Loss
0.1125 (0.1042)    Prec 93.750% (96.395%)
Validation starts
Test: [0/79]    Time 0.367 (0.367)      Loss 0.4050 (0.4050)    Prec 87.500%
(87.500%)
 * Prec 86.690%
best acc: 89.030000
Epoch: [56][0/391]      Time 0.481 (0.481)      Data 0.439 (0.439)      Loss
0.1231 (0.1231)    Prec 97.656% (97.656%)
Epoch: [56][100/391]    Time 0.055 (0.060)      Data 0.004 (0.007)      Loss
0.0769 (0.0940)    Prec 98.438% (96.805%)
Epoch: [56][200/391]    Time 0.052 (0.058)      Data 0.002 (0.005)      Loss
0.1174 (0.0975)    Prec 95.312% (96.618%)
Epoch: [56][300/391]    Time 0.051 (0.057)      Data 0.002 (0.005)      Loss
0.1774 (0.1014)    Prec 91.406% (96.457%)
Validation starts
Test: [0/79]    Time 0.384 (0.384)      Loss 0.2478 (0.2478)    Prec 91.406%
(91.406%)
 * Prec 88.450%
best acc: 89.030000
Epoch: [57][0/391]      Time 0.506 (0.506)      Data 0.420 (0.420)      Loss
0.0969 (0.0969)    Prec 95.312% (95.312%)
Epoch: [57][100/391]    Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.1082 (0.0984)    Prec 96.875% (96.465%)
Epoch: [57][200/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.1029 (0.1001)    Prec 94.531% (96.471%)
Epoch: [57][300/391]    Time 0.060 (0.056)      Data 0.002 (0.003)      Loss
0.0993 (0.1006)    Prec 95.312% (96.431%)
Validation starts
Test: [0/79]    Time 0.372 (0.372)      Loss 0.2494 (0.2494)    Prec 90.625%
(90.625%)
 * Prec 88.040%
best acc: 89.030000
Epoch: [58][0/391]      Time 0.403 (0.403)      Data 0.359 (0.359)      Loss
0.0499 (0.0499)    Prec 99.219% (99.219%)
Epoch: [58][100/391]    Time 0.068 (0.059)      Data 0.007 (0.006)      Loss
0.0465 (0.0943)    Prec 98.438% (96.767%)
Epoch: [58][200/391]    Time 0.043 (0.057)      Data 0.002 (0.004)      Loss
0.1340 (0.0932)    Prec 95.312% (96.844%)
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Epoch: [58][300/391]    Time 0.060 (0.056)      Data 0.002 (0.004)      Loss
0.0472 (0.0975)    Prec 98.438% (96.709%)
Validation starts
Test: [0/79]    Time 0.327 (0.327)      Loss 0.1966 (0.1966)    Prec 91.406%
(91.406%)
 * Prec 89.010%
best acc: 89.030000
Epoch: [59][0/391]      Time 0.378 (0.378)      Data 0.338 (0.338)      Loss
0.0216 (0.0216)    Prec 100.000% (100.000%)
Epoch: [59][100/391]    Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.1004 (0.0893)    Prec 96.875% (96.774%)
Epoch: [59][200/391]    Time 0.057 (0.057)      Data 0.002 (0.004)      Loss
0.0332 (0.0914)    Prec 99.219% (96.805%)
Epoch: [59][300/391]    Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.1257 (0.0947)    Prec 93.750% (96.706%)
Validation starts
Test: [0/79]    Time 0.290 (0.290)      Loss 0.2781 (0.2781)    Prec 91.406%
(91.406%)
 * Prec 89.030%
best acc: 89.030000
Epoch: [60][0/391]      Time 0.430 (0.430)      Data 0.383 (0.383)      Loss
0.0691 (0.0691)    Prec 98.438% (98.438%)
Epoch: [60][100/391]    Time 0.054 (0.059)      Data 0.002 (0.008)      Loss
0.0509 (0.0884)    Prec 96.875% (96.952%)
Epoch: [60][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.2051 (0.0892)    Prec 92.969% (96.922%)
Epoch: [60][300/391]    Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.1351 (0.0948)    Prec 96.875% (96.722%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.2665 (0.2665)    Prec 93.750%
(93.750%)
 * Prec 88.920%
best acc: 89.030000
Epoch: [61][0/391]      Time 0.431 (0.431)      Data 0.393 (0.393)      Loss
0.0654 (0.0654)    Prec 96.875% (96.875%)
Epoch: [61][100/391]    Time 0.050 (0.059)      Data 0.015 (0.008)      Loss
0.0955 (0.0840)    Prec 97.656% (97.146%)
Epoch: [61][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0825 (0.0898)    Prec 96.094% (96.879%)
Epoch: [61][300/391]    Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0660 (0.0898)    Prec 97.656% (96.875%)
Validation starts
Test: [0/79]    Time 0.354 (0.354)      Loss 0.3548 (0.3548)    Prec 89.062%
(89.062%)
 * Prec 87.930%
best acc: 89.030000
Epoch: [62][0/391]      Time 0.417 (0.417)      Data 0.373 (0.373)      Loss
0.0910 (0.0910)    Prec 97.656% (97.656%)
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Epoch: [62][100/391]    Time 0.040 (0.059)      Data 0.002 (0.007)      Loss
0.1300 (0.0892)    Prec 96.875% (96.774%)
Epoch: [62][200/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0808 (0.0909)    Prec 97.656% (96.817%)
Epoch: [62][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1338 (0.0915)    Prec 96.094% (96.771%)
Validation starts
Test: [0/79]    Time 0.320 (0.320)      Loss 0.2537 (0.2537)    Prec 92.969%
(92.969%)
 * Prec 88.900%
best acc: 89.030000
Epoch: [63][0/391]      Time 0.471 (0.471)      Data 0.425 (0.425)      Loss
0.0388 (0.0388)    Prec 100.000% (100.000%)
Epoch: [63][100/391]    Time 0.055 (0.060)      Data 0.007 (0.008)      Loss
0.0666 (0.0841)    Prec 99.219% (96.945%)
Epoch: [63][200/391]    Time 0.058 (0.058)      Data 0.003 (0.005)      Loss
0.0982 (0.0835)    Prec 96.094% (97.093%)
Epoch: [63][300/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.1080 (0.0895)    Prec 97.656% (96.904%)
Validation starts
Test: [0/79]    Time 0.372 (0.372)      Loss 0.2616 (0.2616)    Prec 89.844%
(89.844%)
 * Prec 89.030%
best acc: 89.030000
Epoch: [64][0/391]      Time 0.393 (0.393)      Data 0.347 (0.347)      Loss
0.0693 (0.0693)    Prec 97.656% (97.656%)
Epoch: [64][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0876 (0.0855)    Prec 96.875% (96.945%)
Epoch: [64][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0465 (0.0868)    Prec 98.438% (96.937%)
Epoch: [64][300/391]    Time 0.050 (0.056)      Data 0.002 (0.004)      Loss
0.0864 (0.0896)    Prec 96.094% (96.862%)
Validation starts
Test: [0/79]    Time 0.366 (0.366)      Loss 0.2416 (0.2416)    Prec 92.969%
(92.969%)
 * Prec 89.100%
best acc: 89.100000
Epoch: [65][0/391]      Time 0.432 (0.432)      Data 0.392 (0.392)      Loss
0.0843 (0.0843)    Prec 97.656% (97.656%)
Epoch: [65][100/391]    Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.0833 (0.0752)    Prec 98.438% (97.269%)
Epoch: [65][200/391]    Time 0.056 (0.057)      Data 0.002 (0.006)      Loss
0.1075 (0.0834)    Prec 95.312% (96.992%)
Epoch: [65][300/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0965 (0.0864)    Prec 96.094% (96.930%)
Validation starts
Test: [0/79]    Time 0.314 (0.314)      Loss 0.3352 (0.3352)    Prec 89.844%
(89.844%)
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 * Prec 88.400%
best acc: 89.100000
Epoch: [66][0/391]      Time 0.382 (0.382)      Data 0.343 (0.343)      Loss
0.0877 (0.0877)    Prec 96.094% (96.094%)
Epoch: [66][100/391]    Time 0.055 (0.059)      Data 0.004 (0.007)      Loss
0.1003 (0.0773)    Prec 96.875% (97.161%)
Epoch: [66][200/391]    Time 0.062 (0.057)      Data 0.002 (0.005)      Loss
0.0690 (0.0792)    Prec 98.438% (97.104%)
Epoch: [66][300/391]    Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.0282 (0.0842)    Prec 100.000% (96.989%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.3009 (0.3009)    Prec 92.188%
(92.188%)
 * Prec 87.800%
best acc: 89.100000
Epoch: [67][0/391]      Time 0.391 (0.391)      Data 0.345 (0.345)      Loss
0.1637 (0.1637)    Prec 96.875% (96.875%)
Epoch: [67][100/391]    Time 0.057 (0.059)      Data 0.002 (0.007)      Loss
0.0530 (0.0708)    Prec 99.219% (97.587%)
Epoch: [67][200/391]    Time 0.052 (0.057)      Data 0.004 (0.005)      Loss
0.0979 (0.0765)    Prec 97.656% (97.450%)
Epoch: [67][300/391]    Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0419 (0.0822)    Prec 98.438% (97.202%)
Validation starts
Test: [0/79]    Time 0.349 (0.349)      Loss 0.2425 (0.2425)    Prec 92.969%
(92.969%)
 * Prec 89.980%
best acc: 89.980000
Epoch: [68][0/391]      Time 0.470 (0.470)      Data 0.428 (0.428)      Loss
0.0752 (0.0752)    Prec 97.656% (97.656%)
Epoch: [68][100/391]    Time 0.062 (0.060)      Data 0.009 (0.008)      Loss
0.0836 (0.0784)    Prec 96.094% (97.285%)
Epoch: [68][200/391]    Time 0.054 (0.058)      Data 0.014 (0.006)      Loss
0.1062 (0.0810)    Prec 96.875% (97.268%)
Epoch: [68][300/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0599 (0.0823)    Prec 98.438% (97.192%)
Validation starts
Test: [0/79]    Time 0.361 (0.361)      Loss 0.2238 (0.2238)    Prec 92.969%
(92.969%)
 * Prec 90.130%
best acc: 90.130000
Epoch: [69][0/391]      Time 0.472 (0.472)      Data 0.428 (0.428)      Loss
0.0514 (0.0514)    Prec 97.656% (97.656%)
Epoch: [69][100/391]    Time 0.056 (0.060)      Data 0.004 (0.008)      Loss
0.0558 (0.0749)    Prec 98.438% (97.471%)
Epoch: [69][200/391]    Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.0763 (0.0763)    Prec 96.875% (97.396%)
Epoch: [69][300/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
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0.0402 (0.0787)    Prec 97.656% (97.321%)
Validation starts
Test: [0/79]    Time 0.339 (0.339)      Loss 0.2209 (0.2209)    Prec 92.188%
(92.188%)
 * Prec 89.700%
best acc: 90.130000
Epoch: [70][0/391]      Time 0.471 (0.471)      Data 0.432 (0.432)      Loss
0.0697 (0.0697)    Prec 96.094% (96.094%)
Epoch: [70][100/391]    Time 0.055 (0.059)      Data 0.002 (0.008)      Loss
0.0556 (0.0740)    Prec 98.438% (97.463%)
Epoch: [70][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0953 (0.0838)    Prec 96.094% (97.085%)
Epoch: [70][300/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0485 (0.0815)    Prec 97.656% (97.153%)
Validation starts
Test: [0/79]    Time 0.341 (0.341)      Loss 0.3137 (0.3137)    Prec 90.625%
(90.625%)
 * Prec 89.640%
best acc: 90.130000
Epoch: [71][0/391]      Time 0.498 (0.498)      Data 0.450 (0.450)      Loss
0.0770 (0.0770)    Prec 96.875% (96.875%)
Epoch: [71][100/391]    Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.1445 (0.0818)    Prec 94.531% (97.146%)
Epoch: [71][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0261 (0.0810)    Prec 100.000% (97.225%)
Epoch: [71][300/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.1744 (0.0793)    Prec 93.750% (97.282%)
Validation starts
Test: [0/79]    Time 0.292 (0.292)      Loss 0.2321 (0.2321)    Prec 91.406%
(91.406%)
 * Prec 89.660%
best acc: 90.130000
Epoch: [72][0/391]      Time 0.450 (0.450)      Data 0.407 (0.407)      Loss
0.0815 (0.0815)    Prec 96.875% (96.875%)
Epoch: [72][100/391]    Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0288 (0.0671)    Prec 99.219% (97.765%)
Epoch: [72][200/391]    Time 0.057 (0.057)      Data 0.002 (0.006)      Loss
0.0470 (0.0718)    Prec 98.438% (97.617%)
Epoch: [72][300/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0282 (0.0752)    Prec 100.000% (97.441%)
Validation starts
Test: [0/79]    Time 0.326 (0.326)      Loss 0.1342 (0.1342)    Prec 95.312%
(95.312%)
 * Prec 90.480%
best acc: 90.480000
Epoch: [73][0/391]      Time 0.387 (0.387)      Data 0.347 (0.347)      Loss
0.0474 (0.0474)    Prec 98.438% (98.438%)
Epoch: [73][100/391]    Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
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0.1916 (0.0694)    Prec 95.312% (97.710%)
Epoch: [73][200/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.0167 (0.0771)    Prec 100.000% (97.283%)
Epoch: [73][300/391]    Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.1927 (0.0800)    Prec 94.531% (97.215%)
Validation starts
Test: [0/79]    Time 0.366 (0.366)      Loss 0.2300 (0.2300)    Prec 93.750%
(93.750%)
 * Prec 89.630%
best acc: 90.480000
Epoch: [74][0/391]      Time 0.509 (0.509)      Data 0.457 (0.457)      Loss
0.1064 (0.1064)    Prec 97.656% (97.656%)
Epoch: [74][100/391]    Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.0540 (0.0775)    Prec 98.438% (97.594%)
Epoch: [74][200/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0414 (0.0800)    Prec 98.438% (97.369%)
Epoch: [74][300/391]    Time 0.047 (0.056)      Data 0.002 (0.004)      Loss
0.1266 (0.0810)    Prec 96.094% (97.303%)
Validation starts
Test: [0/79]    Time 0.278 (0.278)      Loss 0.1897 (0.1897)    Prec 93.750%
(93.750%)
 * Prec 90.140%
best acc: 90.480000
Epoch: [75][0/391]      Time 0.330 (0.330)      Data 0.292 (0.292)      Loss
0.0922 (0.0922)    Prec 98.438% (98.438%)
Epoch: [75][100/391]    Time 0.050 (0.058)      Data 0.003 (0.006)      Loss
0.0471 (0.0711)    Prec 98.438% (97.525%)
Epoch: [75][200/391]    Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.1845 (0.0720)    Prec 93.750% (97.512%)
Epoch: [75][300/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0963 (0.0764)    Prec 96.094% (97.373%)
Validation starts
Test: [0/79]    Time 0.417 (0.417)      Loss 0.3231 (0.3231)    Prec 91.406%
(91.406%)
 * Prec 88.260%
best acc: 90.480000
Epoch: [76][0/391]      Time 0.434 (0.434)      Data 0.395 (0.395)      Loss
0.1439 (0.1439)    Prec 94.531% (94.531%)
Epoch: [76][100/391]    Time 0.052 (0.059)      Data 0.003 (0.006)      Loss
0.1110 (0.0648)    Prec 96.875% (97.819%)
Epoch: [76][200/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0680 (0.0725)    Prec 98.438% (97.497%)
Epoch: [76][300/391]    Time 0.057 (0.056)      Data 0.002 (0.004)      Loss
0.0755 (0.0755)    Prec 98.438% (97.410%)
Validation starts
Test: [0/79]    Time 0.313 (0.313)      Loss 0.0993 (0.0993)    Prec 96.094%
(96.094%)
 * Prec 89.900%
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best acc: 90.480000
Epoch: [77][0/391]      Time 0.440 (0.440)      Data 0.400 (0.400)      Loss
0.0704 (0.0704)    Prec 96.875% (96.875%)
Epoch: [77][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.1491 (0.0706)    Prec 95.312% (97.618%)
Epoch: [77][200/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0498 (0.0743)    Prec 98.438% (97.462%)
Epoch: [77][300/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0835 (0.0779)    Prec 96.875% (97.321%)
Validation starts
Test: [0/79]    Time 0.340 (0.340)      Loss 0.2459 (0.2459)    Prec 92.969%
(92.969%)
 * Prec 90.170%
best acc: 90.480000
Epoch: [78][0/391]      Time 0.352 (0.352)      Data 0.309 (0.309)      Loss
0.0311 (0.0311)    Prec 99.219% (99.219%)
Epoch: [78][100/391]    Time 0.058 (0.059)      Data 0.002 (0.006)      Loss
0.1343 (0.0694)    Prec 96.094% (97.571%)
Epoch: [78][200/391]    Time 0.050 (0.057)      Data 0.002 (0.004)      Loss
0.0441 (0.0698)    Prec 98.438% (97.645%)
Epoch: [78][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0624 (0.0712)    Prec 97.656% (97.552%)
Validation starts
Test: [0/79]    Time 0.311 (0.311)      Loss 0.2545 (0.2545)    Prec 90.625%
(90.625%)
 * Prec 88.100%
best acc: 90.480000
Epoch: [79][0/391]      Time 0.302 (0.302)      Data 0.259 (0.259)      Loss
0.0591 (0.0591)    Prec 97.656% (97.656%)
Epoch: [79][100/391]    Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0247 (0.0743)    Prec 99.219% (97.579%)
Epoch: [79][200/391]    Time 0.058 (0.057)      Data 0.004 (0.004)      Loss
0.0464 (0.0748)    Prec 99.219% (97.470%)
Epoch: [79][300/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.1049 (0.0751)    Prec 97.656% (97.485%)
Validation starts
Test: [0/79]    Time 0.351 (0.351)      Loss 0.3319 (0.3319)    Prec 90.625%
(90.625%)
 * Prec 86.270%
best acc: 90.480000
Epoch: [80][0/391]      Time 0.532 (0.532)      Data 0.476 (0.476)      Loss
0.0787 (0.0787)    Prec 97.656% (97.656%)
Epoch: [80][100/391]    Time 0.052 (0.060)      Data 0.003 (0.007)      Loss
0.0422 (0.0718)    Prec 98.438% (97.587%)
Epoch: [80][200/391]    Time 0.060 (0.058)      Data 0.002 (0.005)      Loss
0.0733 (0.0715)    Prec 97.656% (97.544%)
Epoch: [80][300/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0523 (0.0733)    Prec 99.219% (97.477%)
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Validation starts
Test: [0/79]    Time 0.335 (0.335)      Loss 0.2225 (0.2225)    Prec 92.969%
(92.969%)
 * Prec 89.810%
best acc: 90.480000
Epoch: [81][0/391]      Time 0.437 (0.437)      Data 0.393 (0.393)      Loss
0.0592 (0.0592)    Prec 97.656% (97.656%)
Epoch: [81][100/391]    Time 0.058 (0.060)      Data 0.002 (0.007)      Loss
0.0502 (0.0686)    Prec 97.656% (97.757%)
Epoch: [81][200/391]    Time 0.057 (0.058)      Data 0.002 (0.005)      Loss
0.0670 (0.0694)    Prec 96.875% (97.703%)
Epoch: [81][300/391]    Time 0.067 (0.057)      Data 0.001 (0.004)      Loss
0.0199 (0.0694)    Prec 100.000% (97.641%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.2043 (0.2043)    Prec 91.406%
(91.406%)
 * Prec 89.310%
best acc: 90.480000
Epoch: [82][0/391]      Time 0.427 (0.427)      Data 0.382 (0.382)      Loss
0.0383 (0.0383)    Prec 98.438% (98.438%)
Epoch: [82][100/391]    Time 0.051 (0.059)      Data 0.002 (0.006)      Loss
0.1092 (0.0707)    Prec 96.875% (97.618%)
Epoch: [82][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0461 (0.0703)    Prec 98.438% (97.637%)
Epoch: [82][300/391]    Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0974 (0.0715)    Prec 96.094% (97.498%)
Validation starts
Test: [0/79]    Time 0.385 (0.385)      Loss 0.2591 (0.2591)    Prec 91.406%
(91.406%)
 * Prec 89.780%
best acc: 90.480000
Epoch: [83][0/391]      Time 0.461 (0.461)      Data 0.415 (0.415)      Loss
0.0198 (0.0198)    Prec 99.219% (99.219%)
Epoch: [83][100/391]    Time 0.053 (0.059)      Data 0.004 (0.008)      Loss
0.0502 (0.0639)    Prec 97.656% (97.834%)
Epoch: [83][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0516 (0.0649)    Prec 97.656% (97.831%)
Epoch: [83][300/391]    Time 0.064 (0.057)      Data 0.005 (0.004)      Loss
0.0535 (0.0686)    Prec 97.656% (97.677%)
Validation starts
Test: [0/79]    Time 0.314 (0.314)      Loss 0.2719 (0.2719)    Prec 91.406%
(91.406%)
 * Prec 89.200%
best acc: 90.480000
Epoch: [84][0/391]      Time 0.391 (0.391)      Data 0.338 (0.338)      Loss
0.0647 (0.0647)    Prec 97.656% (97.656%)
Epoch: [84][100/391]    Time 0.066 (0.059)      Data 0.002 (0.006)      Loss
0.0377 (0.0651)    Prec 99.219% (97.772%)
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Epoch: [84][200/391]    Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0802 (0.0707)    Prec 97.656% (97.520%)
Epoch: [84][300/391]    Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0229 (0.0732)    Prec 100.000% (97.454%)
Validation starts
Test: [0/79]    Time 0.392 (0.392)      Loss 0.2062 (0.2062)    Prec 91.406%
(91.406%)
 * Prec 88.800%
best acc: 90.480000
Epoch: [85][0/391]      Time 0.401 (0.401)      Data 0.358 (0.358)      Loss
0.0591 (0.0591)    Prec 97.656% (97.656%)
Epoch: [85][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0875 (0.0748)    Prec 98.438% (97.316%)
Epoch: [85][200/391]    Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.0969 (0.0744)    Prec 96.875% (97.357%)
Epoch: [85][300/391]    Time 0.053 (0.057)      Data 0.007 (0.004)      Loss
0.0317 (0.0759)    Prec 99.219% (97.316%)
Validation starts
Test: [0/79]    Time 0.352 (0.352)      Loss 0.1476 (0.1476)    Prec 96.094%
(96.094%)
 * Prec 89.010%
best acc: 90.480000
Epoch: [86][0/391]      Time 0.428 (0.428)      Data 0.374 (0.374)      Loss
0.0653 (0.0653)    Prec 97.656% (97.656%)
Epoch: [86][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0939 (0.0645)    Prec 96.094% (97.718%)
Epoch: [86][200/391]    Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0652 (0.0689)    Prec 96.875% (97.571%)
Epoch: [86][300/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0835 (0.0723)    Prec 95.312% (97.467%)
Validation starts
Test: [0/79]    Time 0.337 (0.337)      Loss 0.2974 (0.2974)    Prec 90.625%
(90.625%)
 * Prec 88.270%
best acc: 90.480000
Epoch: [87][0/391]      Time 0.432 (0.432)      Data 0.393 (0.393)      Loss
0.0450 (0.0450)    Prec 97.656% (97.656%)
Epoch: [87][100/391]    Time 0.052 (0.060)      Data 0.016 (0.008)      Loss
0.0618 (0.0693)    Prec 96.875% (97.734%)
Epoch: [87][200/391]    Time 0.069 (0.058)      Data 0.002 (0.005)      Loss
0.0904 (0.0701)    Prec 97.656% (97.629%)
Epoch: [87][300/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0763 (0.0711)    Prec 98.438% (97.568%)
Validation starts
Test: [0/79]    Time 0.356 (0.356)      Loss 0.2847 (0.2847)    Prec 93.750%
(93.750%)
 * Prec 89.500%
best acc: 90.480000
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Epoch: [88][0/391]      Time 0.441 (0.441)      Data 0.400 (0.400)      Loss
0.0159 (0.0159)    Prec 99.219% (99.219%)
Epoch: [88][100/391]    Time 0.051 (0.060)      Data 0.002 (0.008)      Loss
0.0279 (0.0632)    Prec 99.219% (97.819%)
Epoch: [88][200/391]    Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0880 (0.0654)    Prec 97.656% (97.757%)
Epoch: [88][300/391]    Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.0224 (0.0670)    Prec 100.000% (97.677%)
Validation starts
Test: [0/79]    Time 0.260 (0.260)      Loss 0.2199 (0.2199)    Prec 92.188%
(92.188%)
 * Prec 89.560%
best acc: 90.480000
Epoch: [89][0/391]      Time 0.418 (0.418)      Data 0.363 (0.363)      Loss
0.0729 (0.0729)    Prec 97.656% (97.656%)
Epoch: [89][100/391]    Time 0.052 (0.059)      Data 0.002 (0.006)      Loss
0.0464 (0.0634)    Prec 97.656% (97.850%)
Epoch: [89][200/391]    Time 0.057 (0.057)      Data 0.002 (0.004)      Loss
0.1091 (0.0696)    Prec 96.094% (97.683%)
Epoch: [89][300/391]    Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0306 (0.0682)    Prec 98.438% (97.695%)
Validation starts
Test: [0/79]    Time 0.329 (0.329)      Loss 0.2779 (0.2779)    Prec 90.625%
(90.625%)
 * Prec 89.350%
best acc: 90.480000
Epoch: [90][0/391]      Time 0.401 (0.401)      Data 0.350 (0.350)      Loss
0.0712 (0.0712)    Prec 96.875% (96.875%)
Epoch: [90][100/391]    Time 0.059 (0.059)      Data 0.002 (0.006)      Loss
0.0470 (0.0682)    Prec 96.875% (97.695%)
Epoch: [90][200/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.1650 (0.0682)    Prec 96.875% (97.672%)
Epoch: [90][300/391]    Time 0.051 (0.056)      Data 0.004 (0.004)      Loss
0.1143 (0.0721)    Prec 96.875% (97.589%)
Validation starts
Test: [0/79]    Time 0.329 (0.329)      Loss 0.3270 (0.3270)    Prec 92.188%
(92.188%)
 * Prec 89.110%
best acc: 90.480000
Epoch: [91][0/391]      Time 0.372 (0.372)      Data 0.327 (0.327)      Loss
0.1375 (0.1375)    Prec 94.531% (94.531%)
Epoch: [91][100/391]    Time 0.059 (0.059)      Data 0.005 (0.007)      Loss
0.0610 (0.0756)    Prec 96.094% (97.285%)
Epoch: [91][200/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.1290 (0.0735)    Prec 97.656% (97.373%)
Epoch: [91][300/391]    Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.0471 (0.0748)    Prec 96.875% (97.347%)
Validation starts
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Test: [0/79]    Time 0.346 (0.346)      Loss 0.2856 (0.2856)    Prec 92.188%
(92.188%)
 * Prec 89.440%
best acc: 90.480000
Epoch: [92][0/391]      Time 0.388 (0.388)      Data 0.348 (0.348)      Loss
0.0755 (0.0755)    Prec 98.438% (98.438%)
Epoch: [92][100/391]    Time 0.055 (0.058)      Data 0.002 (0.007)      Loss
0.0868 (0.0617)    Prec 98.438% (97.912%)
Epoch: [92][200/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0638 (0.0640)    Prec 97.656% (97.866%)
Epoch: [92][300/391]    Time 0.057 (0.056)      Data 0.002 (0.004)      Loss
0.0788 (0.0698)    Prec 97.656% (97.656%)
Validation starts
Test: [0/79]    Time 0.375 (0.375)      Loss 0.4251 (0.4251)    Prec 89.844%
(89.844%)
 * Prec 89.370%
best acc: 90.480000
Epoch: [93][0/391]      Time 0.370 (0.370)      Data 0.328 (0.328)      Loss
0.0550 (0.0550)    Prec 97.656% (97.656%)
Epoch: [93][100/391]    Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.0236 (0.0597)    Prec 99.219% (97.942%)
Epoch: [93][200/391]    Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0612 (0.0598)    Prec 98.438% (97.928%)
Epoch: [93][300/391]    Time 0.057 (0.057)      Data 0.004 (0.004)      Loss
0.1701 (0.0604)    Prec 96.094% (97.931%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.2207 (0.2207)    Prec 93.750%
(93.750%)
 * Prec 89.460%
best acc: 90.480000
Epoch: [94][0/391]      Time 0.415 (0.415)      Data 0.364 (0.364)      Loss
0.0866 (0.0866)    Prec 96.875% (96.875%)
Epoch: [94][100/391]    Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0520 (0.0739)    Prec 96.875% (97.393%)
Epoch: [94][200/391]    Time 0.057 (0.058)      Data 0.002 (0.006)      Loss
0.0158 (0.0681)    Prec 99.219% (97.606%)
Epoch: [94][300/391]    Time 0.055 (0.057)      Data 0.003 (0.005)      Loss
0.1240 (0.0686)    Prec 96.094% (97.578%)
Validation starts
Test: [0/79]    Time 0.384 (0.384)      Loss 0.2475 (0.2475)    Prec 91.406%
(91.406%)
 * Prec 88.570%
best acc: 90.480000
Epoch: [95][0/391]      Time 0.436 (0.436)      Data 0.380 (0.380)      Loss
0.0471 (0.0471)    Prec 99.219% (99.219%)
Epoch: [95][100/391]    Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0426 (0.0681)    Prec 99.219% (97.571%)
Epoch: [95][200/391]    Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
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0.0465 (0.0658)    Prec 98.438% (97.648%)
Epoch: [95][300/391]    Time 0.055 (0.056)      Data 0.003 (0.004)      Loss
0.1051 (0.0661)    Prec 96.875% (97.685%)
Validation starts
Test: [0/79]    Time 0.389 (0.389)      Loss 0.2838 (0.2838)    Prec 92.969%
(92.969%)
 * Prec 89.340%
best acc: 90.480000
Epoch: [96][0/391]      Time 0.315 (0.315)      Data 0.275 (0.275)      Loss
0.0395 (0.0395)    Prec 98.438% (98.438%)
Epoch: [96][100/391]    Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.1287 (0.0630)    Prec 96.875% (97.811%)
Epoch: [96][200/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0862 (0.0656)    Prec 97.656% (97.707%)
Epoch: [96][300/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0266 (0.0676)    Prec 99.219% (97.641%)
Validation starts
Test: [0/79]    Time 0.310 (0.310)      Loss 0.3334 (0.3334)    Prec 90.625%
(90.625%)
 * Prec 89.720%
best acc: 90.480000
Epoch: [97][0/391]      Time 0.419 (0.419)      Data 0.377 (0.377)      Loss
0.1561 (0.1561)    Prec 96.094% (96.094%)
Epoch: [97][100/391]    Time 0.055 (0.059)      Data 0.008 (0.007)      Loss
0.0202 (0.0575)    Prec 100.000% (98.035%)
Epoch: [97][200/391]    Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0703 (0.0611)    Prec 96.875% (97.858%)
Epoch: [97][300/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0950 (0.0669)    Prec 97.656% (97.719%)
Validation starts
Test: [0/79]    Time 0.385 (0.385)      Loss 0.3077 (0.3077)    Prec 90.625%
(90.625%)
 * Prec 87.760%
best acc: 90.480000
Epoch: [98][0/391]      Time 0.445 (0.445)      Data 0.396 (0.396)      Loss
0.0287 (0.0287)    Prec 99.219% (99.219%)
Epoch: [98][100/391]    Time 0.059 (0.059)      Data 0.002 (0.007)      Loss
0.0068 (0.0573)    Prec 100.000% (98.120%)
Epoch: [98][200/391]    Time 0.059 (0.058)      Data 0.002 (0.005)      Loss
0.0954 (0.0618)    Prec 96.875% (97.866%)
Epoch: [98][300/391]    Time 0.049 (0.057)      Data 0.003 (0.005)      Loss
0.0791 (0.0615)    Prec 96.875% (97.877%)
Validation starts
Test: [0/79]    Time 0.385 (0.385)      Loss 0.2638 (0.2638)    Prec 92.188%
(92.188%)
 * Prec 89.390%
best acc: 90.480000
Epoch: [99][0/391]      Time 0.451 (0.451)      Data 0.404 (0.404)      Loss
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0.0687 (0.0687)    Prec 96.875% (96.875%)
Epoch: [99][100/391]    Time 0.050 (0.059)      Data 0.002 (0.008)      Loss
0.0552 (0.0703)    Prec 99.219% (97.610%)
Epoch: [99][200/391]    Time 0.066 (0.057)      Data 0.002 (0.006)      Loss
0.0410 (0.0680)    Prec 99.219% (97.722%)
Epoch: [99][300/391]    Time 0.059 (0.057)      Data 0.002 (0.005)      Loss
0.0292 (0.0682)    Prec 98.438% (97.700%)
Validation starts
Test: [0/79]    Time 0.332 (0.332)      Loss 0.2743 (0.2743)    Prec 90.625%
(90.625%)
 * Prec 89.370%
best acc: 90.480000
Epoch: [100][0/391]     Time 0.364 (0.364)      Data 0.313 (0.313)      Loss
0.0394 (0.0394)    Prec 98.438% (98.438%)
Epoch: [100][100/391]   Time 0.061 (0.059)      Data 0.002 (0.007)      Loss
0.1468 (0.0686)    Prec 95.312% (97.679%)
Epoch: [100][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0818 (0.0678)    Prec 98.438% (97.629%)
Epoch: [100][300/391]   Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0610 (0.0675)    Prec 96.875% (97.661%)
Validation starts
Test: [0/79]    Time 0.375 (0.375)      Loss 0.3157 (0.3157)    Prec 89.844%
(89.844%)
 * Prec 89.270%
best acc: 90.480000
Epoch: [101][0/391]     Time 0.467 (0.467)      Data 0.424 (0.424)      Loss
0.0977 (0.0977)    Prec 96.875% (96.875%)
Epoch: [101][100/391]   Time 0.055 (0.060)      Data 0.004 (0.008)      Loss
0.0480 (0.0587)    Prec 97.656% (98.020%)
Epoch: [101][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0241 (0.0653)    Prec 99.219% (97.742%)
Epoch: [101][300/391]   Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0731 (0.0647)    Prec 95.312% (97.737%)
Validation starts
Test: [0/79]    Time 0.372 (0.372)      Loss 0.1961 (0.1961)    Prec 93.750%
(93.750%)
 * Prec 90.070%
best acc: 90.480000
Epoch: [102][0/391]     Time 0.425 (0.425)      Data 0.382 (0.382)      Loss
0.0132 (0.0132)    Prec 100.000% (100.000%)
Epoch: [102][100/391]   Time 0.057 (0.059)      Data 0.010 (0.007)      Loss
0.0095 (0.0547)    Prec 100.000% (98.128%)
Epoch: [102][200/391]   Time 0.057 (0.057)      Data 0.007 (0.006)      Loss
0.0601 (0.0639)    Prec 96.875% (97.851%)
Epoch: [102][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0747 (0.0619)    Prec 97.656% (97.937%)
Validation starts
Test: [0/79]    Time 0.324 (0.324)      Loss 0.2121 (0.2121)    Prec 92.188%
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(92.188%)
 * Prec 89.500%
best acc: 90.480000
Epoch: [103][0/391]     Time 0.414 (0.414)      Data 0.366 (0.366)      Loss
0.0573 (0.0573)    Prec 97.656% (97.656%)
Epoch: [103][100/391]   Time 0.053 (0.060)      Data 0.006 (0.008)      Loss
0.0966 (0.0588)    Prec 96.094% (98.004%)
Epoch: [103][200/391]   Time 0.055 (0.058)      Data 0.006 (0.005)      Loss
0.0548 (0.0621)    Prec 98.438% (97.870%)
Epoch: [103][300/391]   Time 0.055 (0.057)      Data 0.004 (0.004)      Loss
0.0871 (0.0624)    Prec 96.094% (97.838%)
Validation starts
Test: [0/79]    Time 0.368 (0.368)      Loss 0.1492 (0.1492)    Prec 95.312%
(95.312%)
 * Prec 89.370%
best acc: 90.480000
Epoch: [104][0/391]     Time 0.378 (0.378)      Data 0.337 (0.337)      Loss
0.0328 (0.0328)    Prec 98.438% (98.438%)
Epoch: [104][100/391]   Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.1308 (0.0615)    Prec 96.875% (97.881%)
Epoch: [104][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0953 (0.0647)    Prec 96.875% (97.812%)
Epoch: [104][300/391]   Time 0.057 (0.056)      Data 0.002 (0.003)      Loss
0.0327 (0.0667)    Prec 100.000% (97.721%)
Validation starts
Test: [0/79]    Time 0.379 (0.379)      Loss 0.2451 (0.2451)    Prec 90.625%
(90.625%)
 * Prec 89.520%
best acc: 90.480000
Epoch: [105][0/391]     Time 0.441 (0.441)      Data 0.384 (0.384)      Loss
0.0404 (0.0404)    Prec 99.219% (99.219%)
Epoch: [105][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0401 (0.0552)    Prec 99.219% (98.159%)
Epoch: [105][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0375 (0.0578)    Prec 98.438% (97.979%)
Epoch: [105][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0542 (0.0613)    Prec 97.656% (97.864%)
Validation starts
Test: [0/79]    Time 0.402 (0.402)      Loss 0.3316 (0.3316)    Prec 89.062%
(89.062%)
 * Prec 88.310%
best acc: 90.480000
Epoch: [106][0/391]     Time 0.408 (0.408)      Data 0.357 (0.357)      Loss
0.0504 (0.0504)    Prec 98.438% (98.438%)
Epoch: [106][100/391]   Time 0.057 (0.059)      Data 0.009 (0.007)      Loss
0.0497 (0.0622)    Prec 98.438% (98.020%)
Epoch: [106][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0694 (0.0617)    Prec 98.438% (97.944%)
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Epoch: [106][300/391]   Time 0.050 (0.057)      Data 0.002 (0.004)      Loss
0.0616 (0.0629)    Prec 98.438% (97.890%)
Validation starts
Test: [0/79]    Time 0.342 (0.342)      Loss 0.1805 (0.1805)    Prec 93.750%
(93.750%)
 * Prec 89.100%
best acc: 90.480000
Epoch: [107][0/391]     Time 0.377 (0.377)      Data 0.338 (0.338)      Loss
0.0172 (0.0172)    Prec 99.219% (99.219%)
Epoch: [107][100/391]   Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0230 (0.0560)    Prec 99.219% (98.097%)
Epoch: [107][200/391]   Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.2108 (0.0656)    Prec 94.531% (97.777%)
Epoch: [107][300/391]   Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0778 (0.0650)    Prec 98.438% (97.742%)
Validation starts
Test: [0/79]    Time 0.374 (0.374)      Loss 0.3397 (0.3397)    Prec 91.406%
(91.406%)
 * Prec 89.560%
best acc: 90.480000
Epoch: [108][0/391]     Time 0.368 (0.368)      Data 0.327 (0.327)      Loss
0.0475 (0.0475)    Prec 98.438% (98.438%)
Epoch: [108][100/391]   Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.0982 (0.0561)    Prec 96.875% (98.066%)
Epoch: [108][200/391]   Time 0.056 (0.056)      Data 0.002 (0.003)      Loss
0.0141 (0.0620)    Prec 100.000% (97.886%)
Epoch: [108][300/391]   Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.0798 (0.0635)    Prec 96.875% (97.825%)
Validation starts
Test: [0/79]    Time 0.320 (0.320)      Loss 0.1692 (0.1692)    Prec 95.312%
(95.312%)
 * Prec 90.130%
best acc: 90.480000
Epoch: [109][0/391]     Time 0.442 (0.442)      Data 0.388 (0.388)      Loss
0.0390 (0.0390)    Prec 98.438% (98.438%)
Epoch: [109][100/391]   Time 0.055 (0.059)      Data 0.001 (0.006)      Loss
0.0146 (0.0624)    Prec 100.000% (97.881%)
Epoch: [109][200/391]   Time 0.042 (0.057)      Data 0.002 (0.005)      Loss
0.0393 (0.0601)    Prec 99.219% (97.917%)
Epoch: [109][300/391]   Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.0866 (0.0651)    Prec 96.875% (97.786%)
Validation starts
Test: [0/79]    Time 0.388 (0.388)      Loss 0.2630 (0.2630)    Prec 92.188%
(92.188%)
 * Prec 90.410%
best acc: 90.480000
Epoch: [110][0/391]     Time 0.408 (0.408)      Data 0.369 (0.369)      Loss
0.1145 (0.1145)    Prec 96.875% (96.875%)
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Epoch: [110][100/391]   Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.0969 (0.0614)    Prec 96.875% (97.881%)
Epoch: [110][200/391]   Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0792 (0.0639)    Prec 97.656% (97.750%)
Epoch: [110][300/391]   Time 0.050 (0.056)      Data 0.002 (0.004)      Loss
0.0756 (0.0635)    Prec 97.656% (97.752%)
Validation starts
Test: [0/79]    Time 0.371 (0.371)      Loss 0.3501 (0.3501)    Prec 89.844%
(89.844%)
 * Prec 88.460%
best acc: 90.480000
Epoch: [111][0/391]     Time 0.412 (0.412)      Data 0.350 (0.350)      Loss
0.0614 (0.0614)    Prec 97.656% (97.656%)
Epoch: [111][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0546 (0.0569)    Prec 98.438% (98.082%)
Epoch: [111][200/391]   Time 0.054 (0.057)      Data 0.007 (0.005)      Loss
0.0455 (0.0585)    Prec 98.438% (97.975%)
Epoch: [111][300/391]   Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.0502 (0.0637)    Prec 97.656% (97.812%)
Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.2532 (0.2532)    Prec 92.969%
(92.969%)
 * Prec 89.800%
best acc: 90.480000
Epoch: [112][0/391]     Time 0.517 (0.517)      Data 0.446 (0.446)      Loss
0.0404 (0.0404)    Prec 99.219% (99.219%)
Epoch: [112][100/391]   Time 0.057 (0.060)      Data 0.002 (0.007)      Loss
0.0658 (0.0548)    Prec 97.656% (98.167%)
Epoch: [112][200/391]   Time 0.061 (0.058)      Data 0.004 (0.005)      Loss
0.0424 (0.0574)    Prec 98.438% (98.095%)
Epoch: [112][300/391]   Time 0.049 (0.057)      Data 0.003 (0.005)      Loss
0.0578 (0.0609)    Prec 97.656% (97.968%)
Validation starts
Test: [0/79]    Time 0.389 (0.389)      Loss 0.3311 (0.3311)    Prec 89.844%
(89.844%)
 * Prec 88.560%
best acc: 90.480000
Epoch: [113][0/391]     Time 0.503 (0.503)      Data 0.435 (0.435)      Loss
0.0398 (0.0398)    Prec 99.219% (99.219%)
Epoch: [113][100/391]   Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0728 (0.0622)    Prec 97.656% (97.850%)
Epoch: [113][200/391]   Time 0.042 (0.058)      Data 0.002 (0.005)      Loss
0.0321 (0.0607)    Prec 98.438% (97.889%)
Epoch: [113][300/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0156 (0.0614)    Prec 100.000% (97.895%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.3484 (0.3484)    Prec 89.844%
(89.844%)
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 * Prec 89.160%
best acc: 90.480000
Epoch: [114][0/391]     Time 0.484 (0.484)      Data 0.422 (0.422)      Loss
0.0413 (0.0413)    Prec 98.438% (98.438%)
Epoch: [114][100/391]   Time 0.063 (0.061)      Data 0.015 (0.008)      Loss
0.0608 (0.0585)    Prec 98.438% (98.012%)
Epoch: [114][200/391]   Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.0569 (0.0608)    Prec 97.656% (97.952%)
Epoch: [114][300/391]   Time 0.054 (0.057)      Data 0.003 (0.004)      Loss
0.0166 (0.0611)    Prec 100.000% (97.916%)
Validation starts
Test: [0/79]    Time 0.360 (0.360)      Loss 0.2948 (0.2948)    Prec 91.406%
(91.406%)
 * Prec 88.200%
best acc: 90.480000
Epoch: [115][0/391]     Time 0.408 (0.408)      Data 0.358 (0.358)      Loss
0.0721 (0.0721)    Prec 97.656% (97.656%)
Epoch: [115][100/391]   Time 0.048 (0.058)      Data 0.002 (0.007)      Loss
0.0908 (0.0631)    Prec 96.875% (97.718%)
Epoch: [115][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0227 (0.0667)    Prec 99.219% (97.668%)
Epoch: [115][300/391]   Time 0.059 (0.056)      Data 0.002 (0.005)      Loss
0.0419 (0.0656)    Prec 98.438% (97.794%)
Validation starts
Test: [0/79]    Time 0.345 (0.345)      Loss 0.1382 (0.1382)    Prec 94.531%
(94.531%)
 * Prec 90.110%
best acc: 90.480000
Epoch: [116][0/391]     Time 0.422 (0.422)      Data 0.381 (0.381)      Loss
0.0394 (0.0394)    Prec 99.219% (99.219%)
Epoch: [116][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0667 (0.0542)    Prec 96.094% (98.159%)
Epoch: [116][200/391]   Time 0.054 (0.057)      Data 0.009 (0.005)      Loss
0.0781 (0.0572)    Prec 96.875% (98.033%)
Epoch: [116][300/391]   Time 0.054 (0.057)      Data 0.011 (0.005)      Loss
0.0829 (0.0604)    Prec 97.656% (97.921%)
Validation starts
Test: [0/79]    Time 0.347 (0.347)      Loss 0.2516 (0.2516)    Prec 92.188%
(92.188%)
 * Prec 89.420%
best acc: 90.480000
Epoch: [117][0/391]     Time 0.329 (0.329)      Data 0.290 (0.290)      Loss
0.0496 (0.0496)    Prec 97.656% (97.656%)
Epoch: [117][100/391]   Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.0288 (0.0550)    Prec 100.000% (98.120%)
Epoch: [117][200/391]   Time 0.050 (0.057)      Data 0.002 (0.005)      Loss
0.0882 (0.0593)    Prec 96.875% (97.979%)
Epoch: [117][300/391]   Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
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0.1539 (0.0631)    Prec 95.312% (97.838%)
Validation starts
Test: [0/79]    Time 0.340 (0.340)      Loss 0.4155 (0.4155)    Prec 89.844%
(89.844%)
 * Prec 89.270%
best acc: 90.480000
Epoch: [118][0/391]     Time 0.452 (0.452)      Data 0.409 (0.409)      Loss
0.0419 (0.0419)    Prec 97.656% (97.656%)
Epoch: [118][100/391]   Time 0.054 (0.060)      Data 0.002 (0.008)      Loss
0.1479 (0.0592)    Prec 96.875% (98.058%)
Epoch: [118][200/391]   Time 0.053 (0.057)      Data 0.002 (0.005)      Loss
0.0318 (0.0622)    Prec 99.219% (97.886%)
Epoch: [118][300/391]   Time 0.048 (0.057)      Data 0.002 (0.004)      Loss
0.0464 (0.0642)    Prec 99.219% (97.820%)
Validation starts
Test: [0/79]    Time 0.331 (0.331)      Loss 0.1538 (0.1538)    Prec 96.875%
(96.875%)
 * Prec 88.910%
best acc: 90.480000
Epoch: [119][0/391]     Time 0.420 (0.420)      Data 0.381 (0.381)      Loss
0.1137 (0.1137)    Prec 96.094% (96.094%)
Epoch: [119][100/391]   Time 0.068 (0.060)      Data 0.001 (0.008)      Loss
0.0102 (0.0658)    Prec 100.000% (97.826%)
Epoch: [119][200/391]   Time 0.062 (0.058)      Data 0.002 (0.005)      Loss
0.0738 (0.0631)    Prec 97.656% (97.866%)
Epoch: [119][300/391]   Time 0.050 (0.057)      Data 0.015 (0.004)      Loss
0.0115 (0.0654)    Prec 100.000% (97.809%)
Validation starts
Test: [0/79]    Time 0.347 (0.347)      Loss 0.3180 (0.3180)    Prec 92.969%
(92.969%)
 * Prec 90.260%
best acc: 90.480000
Epoch: [120][0/391]     Time 0.379 (0.379)      Data 0.336 (0.336)      Loss
0.0204 (0.0204)    Prec 98.438% (98.438%)
Epoch: [120][100/391]   Time 0.056 (0.058)      Data 0.002 (0.006)      Loss
0.0572 (0.0465)    Prec 96.875% (98.430%)
Epoch: [120][200/391]   Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.1041 (0.0566)    Prec 96.875% (98.150%)
Epoch: [120][300/391]   Time 0.068 (0.056)      Data 0.028 (0.004)      Loss
0.0342 (0.0607)    Prec 99.219% (97.939%)
Validation starts
Test: [0/79]    Time 0.342 (0.342)      Loss 0.2776 (0.2776)    Prec 92.188%
(92.188%)
 * Prec 89.170%
best acc: 90.480000
Epoch: [121][0/391]     Time 0.401 (0.401)      Data 0.358 (0.358)      Loss
0.0651 (0.0651)    Prec 99.219% (99.219%)
Epoch: [121][100/391]   Time 0.057 (0.059)      Data 0.005 (0.007)      Loss
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0.0314 (0.0602)    Prec 99.219% (98.004%)
Epoch: [121][200/391]   Time 0.056 (0.057)      Data 0.007 (0.005)      Loss
0.0249 (0.0571)    Prec 99.219% (98.037%)
Epoch: [121][300/391]   Time 0.054 (0.056)      Data 0.002 (0.005)      Loss
0.0289 (0.0587)    Prec 98.438% (97.978%)
Validation starts
Test: [0/79]    Time 0.362 (0.362)      Loss 0.1897 (0.1897)    Prec 93.750%
(93.750%)
 * Prec 89.080%
best acc: 90.480000
Epoch: [122][0/391]     Time 0.506 (0.506)      Data 0.467 (0.467)      Loss
0.0766 (0.0766)    Prec 96.875% (96.875%)
Epoch: [122][100/391]   Time 0.056 (0.060)      Data 0.002 (0.007)      Loss
0.0294 (0.0668)    Prec 99.219% (97.625%)
Epoch: [122][200/391]   Time 0.056 (0.058)      Data 0.002 (0.005)      Loss
0.0967 (0.0668)    Prec 98.438% (97.668%)
Epoch: [122][300/391]   Time 0.055 (0.057)      Data 0.014 (0.004)      Loss
0.0177 (0.0637)    Prec 100.000% (97.791%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.2911 (0.2911)    Prec 90.625%
(90.625%)
 * Prec 89.650%
best acc: 90.480000
Epoch: [123][0/391]     Time 0.409 (0.409)      Data 0.368 (0.368)      Loss
0.0446 (0.0446)    Prec 98.438% (98.438%)
Epoch: [123][100/391]   Time 0.052 (0.059)      Data 0.003 (0.007)      Loss
0.0618 (0.0565)    Prec 97.656% (98.004%)
Epoch: [123][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0163 (0.0573)    Prec 100.000% (98.002%)
Epoch: [123][300/391]   Time 0.054 (0.056)      Data 0.014 (0.005)      Loss
0.0536 (0.0604)    Prec 99.219% (97.924%)
Validation starts
Test: [0/79]    Time 0.393 (0.393)      Loss 0.3114 (0.3114)    Prec 89.844%
(89.844%)
 * Prec 88.330%
best acc: 90.480000
Epoch: [124][0/391]     Time 0.445 (0.445)      Data 0.404 (0.404)      Loss
0.0210 (0.0210)    Prec 99.219% (99.219%)
Epoch: [124][100/391]   Time 0.055 (0.059)      Data 0.002 (0.008)      Loss
0.0447 (0.0550)    Prec 98.438% (98.012%)
Epoch: [124][200/391]   Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.1228 (0.0586)    Prec 96.094% (97.963%)
Epoch: [124][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0213 (0.0587)    Prec 99.219% (97.955%)
Validation starts
Test: [0/79]    Time 0.398 (0.398)      Loss 0.2093 (0.2093)    Prec 92.969%
(92.969%)
 * Prec 89.290%
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best acc: 90.480000
Epoch: [125][0/391]     Time 0.402 (0.402)      Data 0.360 (0.360)      Loss
0.0413 (0.0413)    Prec 99.219% (99.219%)
Epoch: [125][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0911 (0.0587)    Prec 97.656% (98.074%)
Epoch: [125][200/391]   Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0731 (0.0617)    Prec 98.438% (97.851%)
Epoch: [125][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0568 (0.0628)    Prec 98.438% (97.841%)
Validation starts
Test: [0/79]    Time 0.389 (0.389)      Loss 0.3158 (0.3158)    Prec 89.844%
(89.844%)
 * Prec 90.190%
best acc: 90.480000
Epoch: [126][0/391]     Time 0.398 (0.398)      Data 0.358 (0.358)      Loss
0.0261 (0.0261)    Prec 100.000% (100.000%)
Epoch: [126][100/391]   Time 0.051 (0.059)      Data 0.002 (0.006)      Loss
0.0762 (0.0570)    Prec 97.656% (98.043%)
Epoch: [126][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0818 (0.0539)    Prec 97.656% (98.165%)
Epoch: [126][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.1601 (0.0583)    Prec 95.312% (97.983%)
Validation starts
Test: [0/79]    Time 0.369 (0.369)      Loss 0.2532 (0.2532)    Prec 93.750%
(93.750%)
 * Prec 89.550%
best acc: 90.480000
Epoch: [127][0/391]     Time 0.381 (0.381)      Data 0.335 (0.335)      Loss
0.0743 (0.0743)    Prec 96.875% (96.875%)
Epoch: [127][100/391]   Time 0.051 (0.058)      Data 0.002 (0.006)      Loss
0.0521 (0.0557)    Prec 98.438% (98.113%)
Epoch: [127][200/391]   Time 0.057 (0.057)      Data 0.003 (0.005)      Loss
0.0773 (0.0568)    Prec 97.656% (98.080%)
Epoch: [127][300/391]   Time 0.061 (0.056)      Data 0.002 (0.004)      Loss
0.0753 (0.0609)    Prec 97.656% (97.905%)
Validation starts
Test: [0/79]    Time 0.384 (0.384)      Loss 0.1718 (0.1718)    Prec 93.750%
(93.750%)
 * Prec 90.540%
best acc: 90.540000
Epoch: [128][0/391]     Time 0.414 (0.414)      Data 0.374 (0.374)      Loss
0.0606 (0.0606)    Prec 97.656% (97.656%)
Epoch: [128][100/391]   Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.0224 (0.0514)    Prec 100.000% (98.159%)
Epoch: [128][200/391]   Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.0510 (0.0587)    Prec 99.219% (98.022%)
Epoch: [128][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0375 (0.0590)    Prec 98.438% (98.001%)
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Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.3315 (0.3315)    Prec 92.188%
(92.188%)
 * Prec 89.270%
best acc: 90.540000
Epoch: [129][0/391]     Time 0.333 (0.333)      Data 0.292 (0.292)      Loss
0.0654 (0.0654)    Prec 96.875% (96.875%)
Epoch: [129][100/391]   Time 0.058 (0.058)      Data 0.002 (0.007)      Loss
0.0676 (0.0600)    Prec 98.438% (97.989%)
Epoch: [129][200/391]   Time 0.059 (0.057)      Data 0.002 (0.005)      Loss
0.1293 (0.0584)    Prec 95.312% (98.049%)
Epoch: [129][300/391]   Time 0.046 (0.056)      Data 0.008 (0.004)      Loss
0.0832 (0.0589)    Prec 95.312% (98.033%)
Validation starts
Test: [0/79]    Time 0.327 (0.327)      Loss 0.2448 (0.2448)    Prec 93.750%
(93.750%)
 * Prec 90.290%
best acc: 90.540000
Epoch: [130][0/391]     Time 0.469 (0.469)      Data 0.425 (0.425)      Loss
0.0330 (0.0330)    Prec 99.219% (99.219%)
Epoch: [130][100/391]   Time 0.051 (0.059)      Data 0.002 (0.007)      Loss
0.0811 (0.0577)    Prec 96.094% (98.120%)
Epoch: [130][200/391]   Time 0.060 (0.058)      Data 0.008 (0.005)      Loss
0.0902 (0.0594)    Prec 96.094% (98.014%)
Epoch: [130][300/391]   Time 0.049 (0.057)      Data 0.006 (0.005)      Loss
0.0573 (0.0593)    Prec 97.656% (98.027%)
Validation starts
Test: [0/79]    Time 0.365 (0.365)      Loss 0.2370 (0.2370)    Prec 91.406%
(91.406%)
 * Prec 89.270%
best acc: 90.540000
Epoch: [131][0/391]     Time 0.471 (0.471)      Data 0.431 (0.431)      Loss
0.0304 (0.0304)    Prec 99.219% (99.219%)
Epoch: [131][100/391]   Time 0.060 (0.060)      Data 0.002 (0.007)      Loss
0.0142 (0.0539)    Prec 100.000% (98.113%)
Epoch: [131][200/391]   Time 0.055 (0.058)      Data 0.003 (0.005)      Loss
0.0837 (0.0559)    Prec 96.875% (98.095%)
Epoch: [131][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0288 (0.0579)    Prec 99.219% (98.090%)
Validation starts
Test: [0/79]    Time 0.338 (0.338)      Loss 0.3673 (0.3673)    Prec 88.281%
(88.281%)
 * Prec 89.230%
best acc: 90.540000
Epoch: [132][0/391]     Time 0.455 (0.455)      Data 0.415 (0.415)      Loss
0.0440 (0.0440)    Prec 98.438% (98.438%)
Epoch: [132][100/391]   Time 0.053 (0.059)      Data 0.002 (0.007)      Loss
0.0339 (0.0548)    Prec 98.438% (98.058%)
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Epoch: [132][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0244 (0.0550)    Prec 98.438% (98.072%)
Epoch: [132][300/391]   Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0899 (0.0563)    Prec 95.312% (98.012%)
Validation starts
Test: [0/79]    Time 0.338 (0.338)      Loss 0.3204 (0.3204)    Prec 90.625%
(90.625%)
 * Prec 90.630%
best acc: 90.630000
Epoch: [133][0/391]     Time 0.316 (0.316)      Data 0.277 (0.277)      Loss
0.0414 (0.0414)    Prec 98.438% (98.438%)
Epoch: [133][100/391]   Time 0.062 (0.058)      Data 0.002 (0.006)      Loss
0.0525 (0.0528)    Prec 99.219% (98.198%)
Epoch: [133][200/391]   Time 0.054 (0.057)      Data 0.011 (0.005)      Loss
0.1227 (0.0587)    Prec 96.875% (97.963%)
Epoch: [133][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.1083 (0.0595)    Prec 96.094% (97.942%)
Validation starts
Test: [0/79]    Time 0.367 (0.367)      Loss 0.1918 (0.1918)    Prec 94.531%
(94.531%)
 * Prec 90.210%
best acc: 90.630000
Epoch: [134][0/391]     Time 0.366 (0.366)      Data 0.327 (0.327)      Loss
0.0601 (0.0601)    Prec 98.438% (98.438%)
Epoch: [134][100/391]   Time 0.055 (0.058)      Data 0.002 (0.007)      Loss
0.0498 (0.0568)    Prec 98.438% (97.958%)
Epoch: [134][200/391]   Time 0.054 (0.057)      Data 0.003 (0.005)      Loss
0.0777 (0.0609)    Prec 96.875% (97.819%)
Epoch: [134][300/391]   Time 0.053 (0.056)      Data 0.005 (0.004)      Loss
0.0804 (0.0594)    Prec 97.656% (97.929%)
Validation starts
Test: [0/79]    Time 0.360 (0.360)      Loss 0.1174 (0.1174)    Prec 96.094%
(96.094%)
 * Prec 89.120%
best acc: 90.630000
Epoch: [135][0/391]     Time 0.421 (0.421)      Data 0.381 (0.381)      Loss
0.0332 (0.0332)    Prec 99.219% (99.219%)
Epoch: [135][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0551 (0.0493)    Prec 98.438% (98.267%)
Epoch: [135][200/391]   Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.1132 (0.0541)    Prec 95.312% (98.053%)
Epoch: [135][300/391]   Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.0644 (0.0564)    Prec 96.875% (98.020%)
Validation starts
Test: [0/79]    Time 0.329 (0.329)      Loss 0.3146 (0.3146)    Prec 90.625%
(90.625%)
 * Prec 89.010%
best acc: 90.630000
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Epoch: [136][0/391]     Time 0.420 (0.420)      Data 0.376 (0.376)      Loss
0.0922 (0.0922)    Prec 96.875% (96.875%)
Epoch: [136][100/391]   Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.0209 (0.0619)    Prec 100.000% (97.811%)
Epoch: [136][200/391]   Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.0681 (0.0597)    Prec 96.875% (97.882%)
Epoch: [136][300/391]   Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.0718 (0.0585)    Prec 97.656% (97.950%)
Validation starts
Test: [0/79]    Time 0.314 (0.314)      Loss 0.2094 (0.2094)    Prec 92.188%
(92.188%)
 * Prec 90.460%
best acc: 90.630000
Epoch: [137][0/391]     Time 0.466 (0.466)      Data 0.419 (0.419)      Loss
0.0433 (0.0433)    Prec 98.438% (98.438%)
Epoch: [137][100/391]   Time 0.049 (0.059)      Data 0.002 (0.007)      Loss
0.0517 (0.0524)    Prec 97.656% (98.291%)
Epoch: [137][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0224 (0.0548)    Prec 99.219% (98.200%)
Epoch: [137][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0865 (0.0543)    Prec 97.656% (98.170%)
Validation starts
Test: [0/79]    Time 0.309 (0.309)      Loss 0.1856 (0.1856)    Prec 93.750%
(93.750%)
 * Prec 89.730%
best acc: 90.630000
Epoch: [138][0/391]     Time 0.315 (0.315)      Data 0.275 (0.275)      Loss
0.0611 (0.0611)    Prec 96.875% (96.875%)
Epoch: [138][100/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.1331 (0.0526)    Prec 96.094% (98.120%)
Epoch: [138][200/391]   Time 0.057 (0.056)      Data 0.002 (0.003)      Loss
0.0572 (0.0545)    Prec 98.438% (98.111%)
Epoch: [138][300/391]   Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0452 (0.0573)    Prec 99.219% (98.040%)
Validation starts
Test: [0/79]    Time 0.312 (0.312)      Loss 0.2792 (0.2792)    Prec 94.531%
(94.531%)
 * Prec 89.160%
best acc: 90.630000
Epoch: [139][0/391]     Time 0.437 (0.437)      Data 0.388 (0.388)      Loss
0.0732 (0.0732)    Prec 98.438% (98.438%)
Epoch: [139][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0314 (0.0585)    Prec 98.438% (98.066%)
Epoch: [139][200/391]   Time 0.047 (0.057)      Data 0.002 (0.005)      Loss
0.0311 (0.0556)    Prec 98.438% (98.189%)
Epoch: [139][300/391]   Time 0.067 (0.057)      Data 0.002 (0.005)      Loss
0.0666 (0.0582)    Prec 98.438% (98.113%)
Validation starts
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Test: [0/79]    Time 0.330 (0.330)      Loss 0.2744 (0.2744)    Prec 91.406%
(91.406%)
 * Prec 89.700%
best acc: 90.630000
Epoch: [140][0/391]     Time 0.374 (0.374)      Data 0.330 (0.330)      Loss
0.0491 (0.0491)    Prec 99.219% (99.219%)
Epoch: [140][100/391]   Time 0.050 (0.058)      Data 0.002 (0.006)      Loss
0.0900 (0.0630)    Prec 98.438% (97.997%)
Epoch: [140][200/391]   Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.0673 (0.0592)    Prec 96.875% (98.057%)
Epoch: [140][300/391]   Time 0.056 (0.056)      Data 0.002 (0.003)      Loss
0.0220 (0.0589)    Prec 99.219% (98.009%)
Validation starts
Test: [0/79]    Time 0.315 (0.315)      Loss 0.1371 (0.1371)    Prec 95.312%
(95.312%)
 * Prec 90.440%
best acc: 90.630000
Epoch: [141][0/391]     Time 0.377 (0.377)      Data 0.336 (0.336)      Loss
0.0189 (0.0189)    Prec 100.000% (100.000%)
Epoch: [141][100/391]   Time 0.067 (0.058)      Data 0.002 (0.006)      Loss
0.0331 (0.0510)    Prec 99.219% (98.291%)
Epoch: [141][200/391]   Time 0.060 (0.057)      Data 0.024 (0.004)      Loss
0.0834 (0.0562)    Prec 96.094% (98.200%)
Epoch: [141][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0513 (0.0597)    Prec 98.438% (98.009%)
Validation starts
Test: [0/79]    Time 0.370 (0.370)      Loss 0.2832 (0.2832)    Prec 92.969%
(92.969%)
 * Prec 89.430%
best acc: 90.630000
Epoch: [142][0/391]     Time 0.448 (0.448)      Data 0.409 (0.409)      Loss
0.1081 (0.1081)    Prec 97.656% (97.656%)
Epoch: [142][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.1162 (0.0584)    Prec 95.312% (98.120%)
Epoch: [142][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0386 (0.0576)    Prec 98.438% (98.076%)
Epoch: [142][300/391]   Time 0.061 (0.056)      Data 0.003 (0.004)      Loss
0.1037 (0.0603)    Prec 96.875% (97.947%)
Validation starts
Test: [0/79]    Time 0.401 (0.401)      Loss 0.2207 (0.2207)    Prec 94.531%
(94.531%)
 * Prec 90.070%
best acc: 90.630000
Epoch: [143][0/391]     Time 0.386 (0.386)      Data 0.344 (0.344)      Loss
0.0614 (0.0614)    Prec 98.438% (98.438%)
Epoch: [143][100/391]   Time 0.061 (0.058)      Data 0.001 (0.006)      Loss
0.0172 (0.0572)    Prec 100.000% (98.105%)
Epoch: [143][200/391]   Time 0.052 (0.057)      Data 0.005 (0.005)      Loss
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0.0492 (0.0593)    Prec 99.219% (98.033%)
Epoch: [143][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0927 (0.0599)    Prec 96.094% (97.991%)
Validation starts
Test: [0/79]    Time 0.365 (0.365)      Loss 0.2328 (0.2328)    Prec 90.625%
(90.625%)
 * Prec 89.510%
best acc: 90.630000
Epoch: [144][0/391]     Time 0.445 (0.445)      Data 0.405 (0.405)      Loss
0.1325 (0.1325)    Prec 96.875% (96.875%)
Epoch: [144][100/391]   Time 0.052 (0.059)      Data 0.002 (0.006)      Loss
0.0583 (0.0536)    Prec 97.656% (98.167%)
Epoch: [144][200/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0158 (0.0561)    Prec 100.000% (98.099%)
Epoch: [144][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0155 (0.0550)    Prec 100.000% (98.118%)
Validation starts
Test: [0/79]    Time 0.385 (0.385)      Loss 0.6209 (0.6209)    Prec 85.938%
(85.938%)
 * Prec 88.840%
best acc: 90.630000
Epoch: [145][0/391]     Time 0.406 (0.406)      Data 0.358 (0.358)      Loss
0.0584 (0.0584)    Prec 97.656% (97.656%)
Epoch: [145][100/391]   Time 0.054 (0.059)      Data 0.005 (0.006)      Loss
0.0526 (0.0578)    Prec 97.656% (97.989%)
Epoch: [145][200/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.1083 (0.0573)    Prec 95.312% (97.971%)
Epoch: [145][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0570 (0.0590)    Prec 97.656% (97.970%)
Validation starts
Test: [0/79]    Time 0.375 (0.375)      Loss 0.2057 (0.2057)    Prec 94.531%
(94.531%)
 * Prec 90.050%
best acc: 90.630000
Epoch: [146][0/391]     Time 0.398 (0.398)      Data 0.353 (0.353)      Loss
0.0956 (0.0956)    Prec 96.875% (96.875%)
Epoch: [146][100/391]   Time 0.063 (0.059)      Data 0.015 (0.008)      Loss
0.0565 (0.0512)    Prec 98.438% (98.144%)
Epoch: [146][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0241 (0.0504)    Prec 99.219% (98.158%)
Epoch: [146][300/391]   Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.0254 (0.0566)    Prec 98.438% (97.983%)
Validation starts
Test: [0/79]    Time 0.351 (0.351)      Loss 0.3651 (0.3651)    Prec 89.844%
(89.844%)
 * Prec 89.830%
best acc: 90.630000
Epoch: [147][0/391]     Time 0.324 (0.324)      Data 0.285 (0.285)      Loss
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0.0208 (0.0208)    Prec 99.219% (99.219%)
Epoch: [147][100/391]   Time 0.061 (0.058)      Data 0.013 (0.007)      Loss
0.0621 (0.0594)    Prec 96.875% (97.927%)
Epoch: [147][200/391]   Time 0.053 (0.057)      Data 0.002 (0.005)      Loss
0.1032 (0.0624)    Prec 96.875% (97.862%)
Epoch: [147][300/391]   Time 0.055 (0.056)      Data 0.007 (0.005)      Loss
0.0354 (0.0579)    Prec 99.219% (98.059%)
Validation starts
Test: [0/79]    Time 0.398 (0.398)      Loss 0.2663 (0.2663)    Prec 92.188%
(92.188%)
 * Prec 89.850%
best acc: 90.630000
Epoch: [148][0/391]     Time 0.440 (0.440)      Data 0.396 (0.396)      Loss
0.0788 (0.0788)    Prec 96.094% (96.094%)
Epoch: [148][100/391]   Time 0.057 (0.059)      Data 0.002 (0.007)      Loss
0.1442 (0.0568)    Prec 96.094% (97.888%)
Epoch: [148][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0448 (0.0599)    Prec 96.875% (97.804%)
Epoch: [148][300/391]   Time 0.061 (0.056)      Data 0.002 (0.004)      Loss
0.0680 (0.0613)    Prec 96.875% (97.807%)
Validation starts
Test: [0/79]    Time 0.388 (0.388)      Loss 0.3697 (0.3697)    Prec 89.062%
(89.062%)
 * Prec 89.110%
best acc: 90.630000
Epoch: [149][0/391]     Time 0.450 (0.450)      Data 0.406 (0.406)      Loss
0.0374 (0.0374)    Prec 98.438% (98.438%)
Epoch: [149][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0186 (0.0550)    Prec 100.000% (98.128%)
Epoch: [149][200/391]   Time 0.064 (0.057)      Data 0.002 (0.004)      Loss
0.0181 (0.0555)    Prec 99.219% (98.092%)
Epoch: [149][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0553 (0.0575)    Prec 97.656% (98.007%)
Validation starts
Test: [0/79]    Time 0.332 (0.332)      Loss 0.2733 (0.2733)    Prec 94.531%
(94.531%)
 * Prec 88.920%
best acc: 90.630000
Epoch: [150][0/391]     Time 0.470 (0.470)      Data 0.415 (0.415)      Loss
0.0770 (0.0770)    Prec 97.656% (97.656%)
Epoch: [150][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0152 (0.0336)    Prec 99.219% (98.863%)
Epoch: [150][200/391]   Time 0.051 (0.057)      Data 0.002 (0.005)      Loss
0.0087 (0.0311)    Prec 100.000% (98.958%)
Epoch: [150][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0154 (0.0273)    Prec 99.219% (99.118%)
Validation starts
Test: [0/79]    Time 0.346 (0.346)      Loss 0.1485 (0.1485)    Prec 96.094%
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(96.094%)
 * Prec 91.870%
best acc: 91.870000
Epoch: [151][0/391]     Time 0.442 (0.442)      Data 0.396 (0.396)      Loss
0.0071 (0.0071)    Prec 100.000% (100.000%)
Epoch: [151][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0263 (0.0166)    Prec 99.219% (99.451%)
Epoch: [151][200/391]   Time 0.060 (0.057)      Data 0.002 (0.005)      Loss
0.0057 (0.0150)    Prec 100.000% (99.561%)
Epoch: [151][300/391]   Time 0.058 (0.057)      Data 0.002 (0.004)      Loss
0.0378 (0.0142)    Prec 99.219% (99.585%)
Validation starts
Test: [0/79]    Time 0.380 (0.380)      Loss 0.1855 (0.1855)    Prec 95.312%
(95.312%)
 * Prec 92.220%
best acc: 92.220000
Epoch: [152][0/391]     Time 0.450 (0.450)      Data 0.406 (0.406)      Loss
0.0033 (0.0033)    Prec 100.000% (100.000%)
Epoch: [152][100/391]   Time 0.054 (0.059)      Data 0.001 (0.007)      Loss
0.0116 (0.0104)    Prec 100.000% (99.683%)
Epoch: [152][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0056 (0.0107)    Prec 100.000% (99.701%)
Epoch: [152][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0052 (0.0100)    Prec 100.000% (99.707%)
Validation starts
Test: [0/79]    Time 0.370 (0.370)      Loss 0.1618 (0.1618)    Prec 96.094%
(96.094%)
 * Prec 92.040%
best acc: 92.220000
Epoch: [153][0/391]     Time 0.388 (0.388)      Data 0.347 (0.347)      Loss
0.0079 (0.0079)    Prec 100.000% (100.000%)
Epoch: [153][100/391]   Time 0.054 (0.058)      Data 0.007 (0.006)      Loss
0.0228 (0.0103)    Prec 99.219% (99.706%)
Epoch: [153][200/391]   Time 0.055 (0.056)      Data 0.002 (0.005)      Loss
0.0008 (0.0101)    Prec 100.000% (99.685%)
Epoch: [153][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0254 (0.0097)    Prec 99.219% (99.714%)
Validation starts
Test: [0/79]    Time 0.353 (0.353)      Loss 0.1816 (0.1816)    Prec 95.312%
(95.312%)
 * Prec 92.280%
best acc: 92.280000
Epoch: [154][0/391]     Time 0.358 (0.358)      Data 0.315 (0.315)      Loss
0.0059 (0.0059)    Prec 100.000% (100.000%)
Epoch: [154][100/391]   Time 0.054 (0.058)      Data 0.002 (0.007)      Loss
0.0041 (0.0070)    Prec 100.000% (99.807%)
Epoch: [154][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0031 (0.0070)    Prec 100.000% (99.798%)
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Epoch: [154][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0016 (0.0071)    Prec 100.000% (99.798%)
Validation starts
Test: [0/79]    Time 0.380 (0.380)      Loss 0.1624 (0.1624)    Prec 96.875%
(96.875%)
 * Prec 92.540%
best acc: 92.540000
Epoch: [155][0/391]     Time 0.424 (0.424)      Data 0.372 (0.372)      Loss
0.0022 (0.0022)    Prec 100.000% (100.000%)
Epoch: [155][100/391]   Time 0.060 (0.059)      Data 0.002 (0.006)      Loss
0.0041 (0.0060)    Prec 100.000% (99.869%)
Epoch: [155][200/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0034 (0.0065)    Prec 100.000% (99.813%)
Epoch: [155][300/391]   Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.0060 (0.0063)    Prec 100.000% (99.824%)
Validation starts
Test: [0/79]    Time 0.399 (0.399)      Loss 0.1429 (0.1429)    Prec 96.094%
(96.094%)
 * Prec 92.440%
best acc: 92.540000
Epoch: [156][0/391]     Time 0.421 (0.421)      Data 0.382 (0.382)      Loss
0.0038 (0.0038)    Prec 100.000% (100.000%)
Epoch: [156][100/391]   Time 0.057 (0.059)      Data 0.002 (0.007)      Loss
0.0007 (0.0070)    Prec 100.000% (99.799%)
Epoch: [156][200/391]   Time 0.064 (0.057)      Data 0.002 (0.005)      Loss
0.0073 (0.0058)    Prec 100.000% (99.841%)
Epoch: [156][300/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0025 (0.0056)    Prec 100.000% (99.860%)
Validation starts
Test: [0/79]    Time 0.301 (0.301)      Loss 0.1628 (0.1628)    Prec 95.312%
(95.312%)
 * Prec 92.510%
best acc: 92.540000
Epoch: [157][0/391]     Time 0.409 (0.409)      Data 0.357 (0.357)      Loss
0.0039 (0.0039)    Prec 100.000% (100.000%)
Epoch: [157][100/391]   Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.0045 (0.0053)    Prec 100.000% (99.822%)
Epoch: [157][200/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0012 (0.0054)    Prec 100.000% (99.829%)
Epoch: [157][300/391]   Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0051 (0.0054)    Prec 100.000% (99.834%)
Validation starts
Test: [0/79]    Time 0.372 (0.372)      Loss 0.1503 (0.1503)    Prec 95.312%
(95.312%)
 * Prec 92.340%
best acc: 92.540000
Epoch: [158][0/391]     Time 0.386 (0.386)      Data 0.347 (0.347)      Loss
0.0017 (0.0017)    Prec 100.000% (100.000%)
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Epoch: [158][100/391]   Time 0.055 (0.059)      Data 0.005 (0.007)      Loss
0.0005 (0.0068)    Prec 100.000% (99.791%)
Epoch: [158][200/391]   Time 0.053 (0.057)      Data 0.002 (0.005)      Loss
0.0017 (0.0053)    Prec 100.000% (99.848%)
Epoch: [158][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0018 (0.0050)    Prec 100.000% (99.862%)
Validation starts
Test: [0/79]    Time 0.255 (0.255)      Loss 0.1363 (0.1363)    Prec 96.094%
(96.094%)
 * Prec 92.450%
best acc: 92.540000
Epoch: [159][0/391]     Time 0.367 (0.367)      Data 0.323 (0.323)      Loss
0.0025 (0.0025)    Prec 100.000% (100.000%)
Epoch: [159][100/391]   Time 0.056 (0.058)      Data 0.002 (0.006)      Loss
0.0013 (0.0032)    Prec 100.000% (99.938%)
Epoch: [159][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0029 (0.0042)    Prec 100.000% (99.895%)
Epoch: [159][300/391]   Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.0007 (0.0043)    Prec 100.000% (99.878%)
Validation starts
Test: [0/79]    Time 0.350 (0.350)      Loss 0.1301 (0.1301)    Prec 96.875%
(96.875%)
 * Prec 92.640%
best acc: 92.640000
Epoch: [160][0/391]     Time 0.446 (0.446)      Data 0.401 (0.401)      Loss
0.0043 (0.0043)    Prec 100.000% (100.000%)
Epoch: [160][100/391]   Time 0.052 (0.059)      Data 0.002 (0.007)      Loss
0.0005 (0.0037)    Prec 100.000% (99.930%)
Epoch: [160][200/391]   Time 0.054 (0.057)      Data 0.005 (0.005)      Loss
0.0065 (0.0042)    Prec 100.000% (99.918%)
Epoch: [160][300/391]   Time 0.059 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0043)    Prec 100.000% (99.896%)
Validation starts
Test: [0/79]    Time 0.349 (0.349)      Loss 0.1753 (0.1753)    Prec 95.312%
(95.312%)
 * Prec 92.460%
best acc: 92.640000
Epoch: [161][0/391]     Time 0.449 (0.449)      Data 0.410 (0.410)      Loss
0.0007 (0.0007)    Prec 100.000% (100.000%)
Epoch: [161][100/391]   Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0088 (0.0060)    Prec 100.000% (99.814%)
Epoch: [161][200/391]   Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.0009 (0.0051)    Prec 100.000% (99.845%)
Epoch: [161][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0152 (0.0044)    Prec 99.219% (99.868%)
Validation starts
Test: [0/79]    Time 0.340 (0.340)      Loss 0.1322 (0.1322)    Prec 96.094%
(96.094%)
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 * Prec 92.490%
best acc: 92.640000
Epoch: [162][0/391]     Time 0.445 (0.445)      Data 0.404 (0.404)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [162][100/391]   Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.0006 (0.0027)    Prec 100.000% (99.938%)
Epoch: [162][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0029)    Prec 100.000% (99.946%)
Epoch: [162][300/391]   Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.0024 (0.0034)    Prec 100.000% (99.927%)
Validation starts
Test: [0/79]    Time 0.359 (0.359)      Loss 0.1284 (0.1284)    Prec 96.875%
(96.875%)
 * Prec 92.680%
best acc: 92.680000
Epoch: [163][0/391]     Time 0.400 (0.400)      Data 0.347 (0.347)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [163][100/391]   Time 0.049 (0.059)      Data 0.003 (0.007)      Loss
0.0010 (0.0036)    Prec 100.000% (99.884%)
Epoch: [163][200/391]   Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0034)    Prec 100.000% (99.895%)
Epoch: [163][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0029 (0.0034)    Prec 100.000% (99.899%)
Validation starts
Test: [0/79]    Time 0.336 (0.336)      Loss 0.1562 (0.1562)    Prec 95.312%
(95.312%)
 * Prec 92.440%
best acc: 92.680000
Epoch: [164][0/391]     Time 0.405 (0.405)      Data 0.361 (0.361)      Loss
0.0012 (0.0012)    Prec 100.000% (100.000%)
Epoch: [164][100/391]   Time 0.055 (0.058)      Data 0.004 (0.006)      Loss
0.0029 (0.0029)    Prec 100.000% (99.915%)
Epoch: [164][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0004 (0.0031)    Prec 100.000% (99.907%)
Epoch: [164][300/391]   Time 0.049 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0030)    Prec 100.000% (99.912%)
Validation starts
Test: [0/79]    Time 0.408 (0.408)      Loss 0.1337 (0.1337)    Prec 96.875%
(96.875%)
 * Prec 92.760%
best acc: 92.760000
Epoch: [165][0/391]     Time 0.422 (0.422)      Data 0.369 (0.369)      Loss
0.0006 (0.0006)    Prec 100.000% (100.000%)
Epoch: [165][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0009 (0.0027)    Prec 100.000% (99.930%)
Epoch: [165][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0005 (0.0030)    Prec 100.000% (99.918%)
Epoch: [165][300/391]   Time 0.055 (0.056)      Data 0.014 (0.004)      Loss
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0.0014 (0.0030)    Prec 100.000% (99.914%)
Validation starts
Test: [0/79]    Time 0.330 (0.330)      Loss 0.1678 (0.1678)    Prec 95.312%
(95.312%)
 * Prec 92.600%
best acc: 92.760000
Epoch: [166][0/391]     Time 0.508 (0.508)      Data 0.464 (0.464)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [166][100/391]   Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0005 (0.0027)    Prec 100.000% (99.915%)
Epoch: [166][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0011 (0.0028)    Prec 100.000% (99.926%)
Epoch: [166][300/391]   Time 0.055 (0.057)      Data 0.003 (0.004)      Loss
0.0003 (0.0030)    Prec 100.000% (99.914%)
Validation starts
Test: [0/79]    Time 0.335 (0.335)      Loss 0.1763 (0.1763)    Prec 95.312%
(95.312%)
 * Prec 92.610%
best acc: 92.760000
Epoch: [167][0/391]     Time 0.392 (0.392)      Data 0.353 (0.353)      Loss
0.0005 (0.0005)    Prec 100.000% (100.000%)
Epoch: [167][100/391]   Time 0.056 (0.058)      Data 0.002 (0.007)      Loss
0.0015 (0.0032)    Prec 100.000% (99.923%)
Epoch: [167][200/391]   Time 0.060 (0.057)      Data 0.003 (0.005)      Loss
0.0083 (0.0029)    Prec 99.219% (99.926%)
Epoch: [167][300/391]   Time 0.057 (0.057)      Data 0.012 (0.005)      Loss
0.0022 (0.0027)    Prec 100.000% (99.927%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.1690 (0.1690)    Prec 95.312%
(95.312%)
 * Prec 92.610%
best acc: 92.760000
Epoch: [168][0/391]     Time 0.370 (0.370)      Data 0.328 (0.328)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [168][100/391]   Time 0.058 (0.058)      Data 0.002 (0.006)      Loss
0.0003 (0.0028)    Prec 100.000% (99.938%)
Epoch: [168][200/391]   Time 0.056 (0.057)      Data 0.006 (0.005)      Loss
0.0003 (0.0027)    Prec 100.000% (99.930%)
Epoch: [168][300/391]   Time 0.055 (0.056)      Data 0.015 (0.004)      Loss
0.0029 (0.0028)    Prec 100.000% (99.927%)
Validation starts
Test: [0/79]    Time 0.367 (0.367)      Loss 0.2001 (0.2001)    Prec 94.531%
(94.531%)
 * Prec 92.690%
best acc: 92.760000
Epoch: [169][0/391]     Time 0.441 (0.441)      Data 0.394 (0.394)      Loss
0.0009 (0.0009)    Prec 100.000% (100.000%)
Epoch: [169][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
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0.0019 (0.0026)    Prec 100.000% (99.915%)
Epoch: [169][200/391]   Time 0.067 (0.057)      Data 0.006 (0.005)      Loss
0.0011 (0.0027)    Prec 100.000% (99.926%)
Epoch: [169][300/391]   Time 0.046 (0.056)      Data 0.002 (0.004)      Loss
0.0031 (0.0025)    Prec 100.000% (99.935%)
Validation starts
Test: [0/79]    Time 0.385 (0.385)      Loss 0.1475 (0.1475)    Prec 96.094%
(96.094%)
 * Prec 92.770%
best acc: 92.770000
Epoch: [170][0/391]     Time 0.429 (0.429)      Data 0.389 (0.389)      Loss
0.0043 (0.0043)    Prec 100.000% (100.000%)
Epoch: [170][100/391]   Time 0.063 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0035)    Prec 100.000% (99.907%)
Epoch: [170][200/391]   Time 0.051 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0032)    Prec 100.000% (99.922%)
Epoch: [170][300/391]   Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0028)    Prec 100.000% (99.927%)
Validation starts
Test: [0/79]    Time 0.350 (0.350)      Loss 0.1352 (0.1352)    Prec 96.875%
(96.875%)
 * Prec 92.590%
best acc: 92.770000
Epoch: [171][0/391]     Time 0.418 (0.418)      Data 0.379 (0.379)      Loss
0.0018 (0.0018)    Prec 100.000% (100.000%)
Epoch: [171][100/391]   Time 0.057 (0.059)      Data 0.002 (0.006)      Loss
0.0063 (0.0023)    Prec 100.000% (99.954%)
Epoch: [171][200/391]   Time 0.050 (0.057)      Data 0.002 (0.004)      Loss
0.0072 (0.0026)    Prec 100.000% (99.938%)
Epoch: [171][300/391]   Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.0009 (0.0027)    Prec 100.000% (99.935%)
Validation starts
Test: [0/79]    Time 0.311 (0.311)      Loss 0.1602 (0.1602)    Prec 95.312%
(95.312%)
 * Prec 92.630%
best acc: 92.770000
Epoch: [172][0/391]     Time 0.401 (0.401)      Data 0.362 (0.362)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [172][100/391]   Time 0.057 (0.058)      Data 0.005 (0.006)      Loss
0.0005 (0.0024)    Prec 100.000% (99.923%)
Epoch: [172][200/391]   Time 0.050 (0.057)      Data 0.002 (0.005)      Loss
0.0037 (0.0030)    Prec 100.000% (99.914%)
Epoch: [172][300/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0029)    Prec 100.000% (99.920%)
Validation starts
Test: [0/79]    Time 0.282 (0.282)      Loss 0.1271 (0.1271)    Prec 95.312%
(95.312%)
 * Prec 92.670%
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best acc: 92.770000
Epoch: [173][0/391]     Time 0.432 (0.432)      Data 0.387 (0.387)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [173][100/391]   Time 0.061 (0.059)      Data 0.002 (0.007)      Loss
0.0156 (0.0019)    Prec 99.219% (99.946%)
Epoch: [173][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0021)    Prec 100.000% (99.949%)
Epoch: [173][300/391]   Time 0.058 (0.056)      Data 0.003 (0.004)      Loss
0.0033 (0.0023)    Prec 100.000% (99.940%)
Validation starts
Test: [0/79]    Time 0.352 (0.352)      Loss 0.1099 (0.1099)    Prec 96.094%
(96.094%)
 * Prec 92.730%
best acc: 92.770000
Epoch: [174][0/391]     Time 0.469 (0.469)      Data 0.416 (0.416)      Loss
0.0117 (0.0117)    Prec 99.219% (99.219%)
Epoch: [174][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0004 (0.0028)    Prec 100.000% (99.930%)
Epoch: [174][200/391]   Time 0.049 (0.057)      Data 0.002 (0.005)      Loss
0.0059 (0.0028)    Prec 100.000% (99.934%)
Epoch: [174][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0025)    Prec 100.000% (99.940%)
Validation starts
Test: [0/79]    Time 0.298 (0.298)      Loss 0.1323 (0.1323)    Prec 95.312%
(95.312%)
 * Prec 92.510%
best acc: 92.770000
Epoch: [175][0/391]     Time 0.369 (0.369)      Data 0.329 (0.329)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [175][100/391]   Time 0.056 (0.058)      Data 0.002 (0.007)      Loss
0.0069 (0.0021)    Prec 99.219% (99.946%)
Epoch: [175][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0029)    Prec 100.000% (99.914%)
Epoch: [175][300/391]   Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.0011 (0.0028)    Prec 100.000% (99.922%)
Validation starts
Test: [0/79]    Time 0.319 (0.319)      Loss 0.1504 (0.1504)    Prec 94.531%
(94.531%)
 * Prec 92.770%
best acc: 92.770000
Epoch: [176][0/391]     Time 0.446 (0.446)      Data 0.406 (0.406)      Loss
0.0294 (0.0294)    Prec 99.219% (99.219%)
Epoch: [176][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0266 (0.0026)    Prec 99.219% (99.930%)
Epoch: [176][200/391]   Time 0.066 (0.058)      Data 0.002 (0.005)      Loss
0.0170 (0.0023)    Prec 99.219% (99.930%)
Epoch: [176][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0019 (0.0024)    Prec 100.000% (99.935%)
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Validation starts
Test: [0/79]    Time 0.410 (0.410)      Loss 0.1422 (0.1422)    Prec 95.312%
(95.312%)
 * Prec 92.690%
best acc: 92.770000
Epoch: [177][0/391]     Time 0.471 (0.471)      Data 0.425 (0.425)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [177][100/391]   Time 0.060 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0018)    Prec 100.000% (99.930%)
Epoch: [177][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0015 (0.0019)    Prec 100.000% (99.938%)
Epoch: [177][300/391]   Time 0.057 (0.056)      Data 0.002 (0.004)      Loss
0.0004 (0.0022)    Prec 100.000% (99.938%)
Validation starts
Test: [0/79]    Time 0.380 (0.380)      Loss 0.1241 (0.1241)    Prec 96.875%
(96.875%)
 * Prec 92.660%
best acc: 92.770000
Epoch: [178][0/391]     Time 0.415 (0.415)      Data 0.357 (0.357)      Loss
0.0007 (0.0007)    Prec 100.000% (100.000%)
Epoch: [178][100/391]   Time 0.062 (0.059)      Data 0.002 (0.007)      Loss
0.0025 (0.0027)    Prec 100.000% (99.930%)
Epoch: [178][200/391]   Time 0.055 (0.057)      Data 0.003 (0.005)      Loss
0.0115 (0.0021)    Prec 99.219% (99.942%)
Epoch: [178][300/391]   Time 0.046 (0.057)      Data 0.004 (0.005)      Loss
0.0026 (0.0019)    Prec 100.000% (99.948%)
Validation starts
Test: [0/79]    Time 0.363 (0.363)      Loss 0.1317 (0.1317)    Prec 94.531%
(94.531%)
 * Prec 92.680%
best acc: 92.770000
Epoch: [179][0/391]     Time 0.467 (0.467)      Data 0.420 (0.420)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [179][100/391]   Time 0.055 (0.060)      Data 0.012 (0.008)      Loss
0.0044 (0.0028)    Prec 100.000% (99.930%)
Epoch: [179][200/391]   Time 0.053 (0.057)      Data 0.006 (0.005)      Loss
0.0004 (0.0022)    Prec 100.000% (99.946%)
Epoch: [179][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0165 (0.0021)    Prec 99.219% (99.943%)
Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.1657 (0.1657)    Prec 94.531%
(94.531%)
 * Prec 92.650%
best acc: 92.770000
Epoch: [180][0/391]     Time 0.415 (0.415)      Data 0.376 (0.376)      Loss
0.0007 (0.0007)    Prec 100.000% (100.000%)
Epoch: [180][100/391]   Time 0.055 (0.059)      Data 0.004 (0.008)      Loss
0.0022 (0.0022)    Prec 100.000% (99.930%)
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Epoch: [180][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0005 (0.0023)    Prec 100.000% (99.922%)
Epoch: [180][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0006 (0.0022)    Prec 100.000% (99.935%)
Validation starts
Test: [0/79]    Time 0.291 (0.291)      Loss 0.1329 (0.1329)    Prec 95.312%
(95.312%)
 * Prec 92.640%
best acc: 92.770000
Epoch: [181][0/391]     Time 0.465 (0.465)      Data 0.413 (0.413)      Loss
0.0015 (0.0015)    Prec 100.000% (100.000%)
Epoch: [181][100/391]   Time 0.060 (0.060)      Data 0.002 (0.007)      Loss
0.0002 (0.0016)    Prec 100.000% (99.961%)
Epoch: [181][200/391]   Time 0.060 (0.057)      Data 0.002 (0.005)      Loss
0.0011 (0.0020)    Prec 100.000% (99.938%)
Epoch: [181][300/391]   Time 0.059 (0.057)      Data 0.002 (0.004)      Loss
0.0030 (0.0019)    Prec 100.000% (99.951%)
Validation starts
Test: [0/79]    Time 0.282 (0.282)      Loss 0.1239 (0.1239)    Prec 96.875%
(96.875%)
 * Prec 92.640%
best acc: 92.770000
Epoch: [182][0/391]     Time 0.372 (0.372)      Data 0.328 (0.328)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [182][100/391]   Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.0019 (0.0020)    Prec 100.000% (99.954%)
Epoch: [182][200/391]   Time 0.053 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0024)    Prec 100.000% (99.926%)
Epoch: [182][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0011 (0.0022)    Prec 100.000% (99.933%)
Validation starts
Test: [0/79]    Time 0.374 (0.374)      Loss 0.1412 (0.1412)    Prec 95.312%
(95.312%)
 * Prec 92.660%
best acc: 92.770000
Epoch: [183][0/391]     Time 0.376 (0.376)      Data 0.335 (0.335)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [183][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.0006 (0.0018)    Prec 100.000% (99.946%)
Epoch: [183][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0021)    Prec 100.000% (99.946%)
Epoch: [183][300/391]   Time 0.059 (0.056)      Data 0.002 (0.004)      Loss
0.0047 (0.0021)    Prec 100.000% (99.938%)
Validation starts
Test: [0/79]    Time 0.315 (0.315)      Loss 0.1648 (0.1648)    Prec 94.531%
(94.531%)
 * Prec 92.610%
best acc: 92.770000
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Epoch: [184][0/391]     Time 0.507 (0.507)      Data 0.457 (0.457)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [184][100/391]   Time 0.056 (0.060)      Data 0.002 (0.007)      Loss
0.0003 (0.0015)    Prec 100.000% (99.969%)
Epoch: [184][200/391]   Time 0.065 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0017)    Prec 100.000% (99.965%)
Epoch: [184][300/391]   Time 0.059 (0.057)      Data 0.007 (0.004)      Loss
0.0006 (0.0017)    Prec 100.000% (99.961%)
Validation starts
Test: [0/79]    Time 0.329 (0.329)      Loss 0.1735 (0.1735)    Prec 96.094%
(96.094%)
 * Prec 92.740%
best acc: 92.770000
Epoch: [185][0/391]     Time 0.365 (0.365)      Data 0.326 (0.326)      Loss
0.0014 (0.0014)    Prec 100.000% (100.000%)
Epoch: [185][100/391]   Time 0.051 (0.058)      Data 0.005 (0.007)      Loss
0.0006 (0.0019)    Prec 100.000% (99.977%)
Epoch: [185][200/391]   Time 0.051 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0019)    Prec 100.000% (99.961%)
Epoch: [185][300/391]   Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.0006 (0.0019)    Prec 100.000% (99.953%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.1630 (0.1630)    Prec 95.312%
(95.312%)
 * Prec 92.710%
best acc: 92.770000
Epoch: [186][0/391]     Time 0.356 (0.356)      Data 0.317 (0.317)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [186][100/391]   Time 0.049 (0.059)      Data 0.002 (0.007)      Loss
0.0010 (0.0026)    Prec 100.000% (99.930%)
Epoch: [186][200/391]   Time 0.059 (0.057)      Data 0.003 (0.005)      Loss
0.0006 (0.0023)    Prec 100.000% (99.946%)
Epoch: [186][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0021)    Prec 100.000% (99.956%)
Validation starts
Test: [0/79]    Time 0.421 (0.421)      Loss 0.1306 (0.1306)    Prec 96.094%
(96.094%)
 * Prec 92.650%
best acc: 92.770000
Epoch: [187][0/391]     Time 0.410 (0.410)      Data 0.365 (0.365)      Loss
0.0012 (0.0012)    Prec 100.000% (100.000%)
Epoch: [187][100/391]   Time 0.055 (0.059)      Data 0.008 (0.007)      Loss
0.0010 (0.0019)    Prec 100.000% (99.938%)
Epoch: [187][200/391]   Time 0.053 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0023)    Prec 100.000% (99.930%)
Epoch: [187][300/391]   Time 0.064 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0022)    Prec 100.000% (99.935%)
Validation starts
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Test: [0/79]    Time 0.387 (0.387)      Loss 0.1928 (0.1928)    Prec 95.312%
(95.312%)
 * Prec 92.700%
best acc: 92.770000
Epoch: [188][0/391]     Time 0.454 (0.454)      Data 0.400 (0.400)      Loss
0.0007 (0.0007)    Prec 100.000% (100.000%)
Epoch: [188][100/391]   Time 0.056 (0.060)      Data 0.002 (0.007)      Loss
0.0001 (0.0013)    Prec 100.000% (99.977%)
Epoch: [188][200/391]   Time 0.054 (0.058)      Data 0.001 (0.005)      Loss
0.0003 (0.0014)    Prec 100.000% (99.973%)
Epoch: [188][300/391]   Time 0.050 (0.057)      Data 0.002 (0.004)      Loss
0.0017 (0.0014)    Prec 100.000% (99.964%)
Validation starts
Test: [0/79]    Time 0.331 (0.331)      Loss 0.1628 (0.1628)    Prec 96.094%
(96.094%)
 * Prec 92.830%
best acc: 92.830000
Epoch: [189][0/391]     Time 0.377 (0.377)      Data 0.334 (0.334)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [189][100/391]   Time 0.079 (0.059)      Data 0.002 (0.007)      Loss
0.0004 (0.0012)    Prec 100.000% (99.961%)
Epoch: [189][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0019 (0.0012)    Prec 100.000% (99.973%)
Epoch: [189][300/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0013)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.358 (0.358)      Loss 0.1415 (0.1415)    Prec 96.875%
(96.875%)
 * Prec 92.680%
best acc: 92.830000
Epoch: [190][0/391]     Time 0.454 (0.454)      Data 0.411 (0.411)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [190][100/391]   Time 0.051 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0016)    Prec 100.000% (99.946%)
Epoch: [190][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0015)    Prec 100.000% (99.957%)
Epoch: [190][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0005 (0.0014)    Prec 100.000% (99.961%)
Validation starts
Test: [0/79]    Time 0.318 (0.318)      Loss 0.1052 (0.1052)    Prec 97.656%
(97.656%)
 * Prec 92.680%
best acc: 92.830000
Epoch: [191][0/391]     Time 0.396 (0.396)      Data 0.352 (0.352)      Loss
0.0174 (0.0174)    Prec 99.219% (99.219%)
Epoch: [191][100/391]   Time 0.063 (0.059)      Data 0.002 (0.006)      Loss
0.0013 (0.0017)    Prec 100.000% (99.954%)
Epoch: [191][200/391]   Time 0.053 (0.057)      Data 0.002 (0.004)      Loss
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0.0002 (0.0017)    Prec 100.000% (99.961%)
Epoch: [191][300/391]   Time 0.057 (0.056)      Data 0.002 (0.004)      Loss
0.0002 (0.0017)    Prec 100.000% (99.956%)
Validation starts
Test: [0/79]    Time 0.377 (0.377)      Loss 0.1411 (0.1411)    Prec 97.656%
(97.656%)
 * Prec 92.760%
best acc: 92.830000
Epoch: [192][0/391]     Time 0.455 (0.455)      Data 0.411 (0.411)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [192][100/391]   Time 0.055 (0.060)      Data 0.002 (0.007)      Loss
0.0115 (0.0013)    Prec 99.219% (99.954%)
Epoch: [192][200/391]   Time 0.048 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0014)    Prec 100.000% (99.953%)
Epoch: [192][300/391]   Time 0.050 (0.057)      Data 0.005 (0.004)      Loss
0.0006 (0.0016)    Prec 100.000% (99.951%)
Validation starts
Test: [0/79]    Time 0.340 (0.340)      Loss 0.1341 (0.1341)    Prec 97.656%
(97.656%)
 * Prec 92.840%
best acc: 92.840000
Epoch: [193][0/391]     Time 0.426 (0.426)      Data 0.375 (0.375)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [193][100/391]   Time 0.061 (0.059)      Data 0.002 (0.007)      Loss
0.0001 (0.0017)    Prec 100.000% (99.946%)
Epoch: [193][200/391]   Time 0.059 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0017)    Prec 100.000% (99.949%)
Epoch: [193][300/391]   Time 0.059 (0.057)      Data 0.002 (0.004)      Loss
0.0007 (0.0016)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.380 (0.380)      Loss 0.1365 (0.1365)    Prec 96.094%
(96.094%)
 * Prec 92.740%
best acc: 92.840000
Epoch: [194][0/391]     Time 0.427 (0.427)      Data 0.388 (0.388)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [194][100/391]   Time 0.057 (0.059)      Data 0.001 (0.006)      Loss
0.0002 (0.0019)    Prec 100.000% (99.961%)
Epoch: [194][200/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0004 (0.0017)    Prec 100.000% (99.961%)
Epoch: [194][300/391]   Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.0006 (0.0015)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.368 (0.368)      Loss 0.1224 (0.1224)    Prec 96.875%
(96.875%)
 * Prec 92.790%
best acc: 92.840000
Epoch: [195][0/391]     Time 0.475 (0.475)      Data 0.420 (0.420)      Loss
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0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [195][100/391]   Time 0.054 (0.060)      Data 0.002 (0.008)      Loss
0.0003 (0.0014)    Prec 100.000% (99.961%)
Epoch: [195][200/391]   Time 0.069 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0016)    Prec 100.000% (99.953%)
Epoch: [195][300/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0004 (0.0016)    Prec 100.000% (99.953%)
Validation starts
Test: [0/79]    Time 0.438 (0.438)      Loss 0.1384 (0.1384)    Prec 96.875%
(96.875%)
 * Prec 92.670%
best acc: 92.840000
Epoch: [196][0/391]     Time 0.364 (0.364)      Data 0.325 (0.325)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [196][100/391]   Time 0.052 (0.058)      Data 0.002 (0.006)      Loss
0.0002 (0.0013)    Prec 100.000% (99.977%)
Epoch: [196][200/391]   Time 0.056 (0.057)      Data 0.003 (0.005)      Loss
0.0003 (0.0013)    Prec 100.000% (99.965%)
Epoch: [196][300/391]   Time 0.065 (0.056)      Data 0.002 (0.004)      Loss
0.0004 (0.0012)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.325 (0.325)      Loss 0.1623 (0.1623)    Prec 96.094%
(96.094%)
 * Prec 92.750%
best acc: 92.840000
Epoch: [197][0/391]     Time 0.416 (0.416)      Data 0.377 (0.377)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [197][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0005 (0.0011)    Prec 100.000% (99.969%)
Epoch: [197][200/391]   Time 0.061 (0.057)      Data 0.002 (0.005)      Loss
0.0004 (0.0012)    Prec 100.000% (99.977%)
Epoch: [197][300/391]   Time 0.051 (0.057)      Data 0.006 (0.005)      Loss
0.0003 (0.0014)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.395 (0.395)      Loss 0.1631 (0.1631)    Prec 94.531%
(94.531%)
 * Prec 92.450%
best acc: 92.840000
Epoch: [198][0/391]     Time 0.471 (0.471)      Data 0.427 (0.427)      Loss
0.0017 (0.0017)    Prec 100.000% (100.000%)
Epoch: [198][100/391]   Time 0.062 (0.060)      Data 0.002 (0.007)      Loss
0.0001 (0.0013)    Prec 100.000% (99.969%)
Epoch: [198][200/391]   Time 0.057 (0.057)      Data 0.014 (0.005)      Loss
0.0007 (0.0014)    Prec 100.000% (99.969%)
Epoch: [198][300/391]   Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0013)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.398 (0.398)      Loss 0.1126 (0.1126)    Prec 96.094%
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(96.094%)
 * Prec 92.790%
best acc: 92.840000
Epoch: [199][0/391]     Time 0.484 (0.484)      Data 0.435 (0.435)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [199][100/391]   Time 0.055 (0.060)      Data 0.002 (0.008)      Loss
0.0011 (0.0015)    Prec 100.000% (99.969%)
Epoch: [199][200/391]   Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0036 (0.0016)    Prec 100.000% (99.965%)
Epoch: [199][300/391]   Time 0.048 (0.057)      Data 0.002 (0.004)      Loss
0.0004 (0.0016)    Prec 100.000% (99.964%)
Validation starts
Test: [0/79]    Time 0.340 (0.340)      Loss 0.1207 (0.1207)    Prec 96.094%
(96.094%)
 * Prec 92.680%
best acc: 92.840000
Epoch: [200][0/391]     Time 0.430 (0.430)      Data 0.382 (0.382)      Loss
0.0079 (0.0079)    Prec 99.219% (99.219%)
Epoch: [200][100/391]   Time 0.055 (0.060)      Data 0.002 (0.007)      Loss
0.0290 (0.0021)    Prec 99.219% (99.923%)
Epoch: [200][200/391]   Time 0.065 (0.058)      Data 0.002 (0.005)      Loss
0.0003 (0.0019)    Prec 100.000% (99.934%)
Epoch: [200][300/391]   Time 0.061 (0.057)      Data 0.002 (0.004)      Loss
0.0005 (0.0020)    Prec 100.000% (99.935%)
Validation starts
Test: [0/79]    Time 0.383 (0.383)      Loss 0.1169 (0.1169)    Prec 96.094%
(96.094%)
 * Prec 92.590%
best acc: 92.840000
Epoch: [201][0/391]     Time 0.515 (0.515)      Data 0.468 (0.468)      Loss
0.0006 (0.0006)    Prec 100.000% (100.000%)
Epoch: [201][100/391]   Time 0.054 (0.060)      Data 0.002 (0.008)      Loss
0.0005 (0.0010)    Prec 100.000% (99.969%)
Epoch: [201][200/391]   Time 0.053 (0.058)      Data 0.002 (0.005)      Loss
0.0016 (0.0013)    Prec 100.000% (99.953%)
Epoch: [201][300/391]   Time 0.054 (0.057)      Data 0.004 (0.004)      Loss
0.0002 (0.0015)    Prec 100.000% (99.948%)
Validation starts
Test: [0/79]    Time 0.356 (0.356)      Loss 0.1178 (0.1178)    Prec 96.875%
(96.875%)
 * Prec 92.750%
best acc: 92.840000
Epoch: [202][0/391]     Time 0.427 (0.427)      Data 0.387 (0.387)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [202][100/391]   Time 0.059 (0.059)      Data 0.002 (0.006)      Loss
0.0009 (0.0016)    Prec 100.000% (99.946%)
Epoch: [202][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0017)    Prec 100.000% (99.949%)
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Epoch: [202][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0015)    Prec 100.000% (99.956%)
Validation starts
Test: [0/79]    Time 0.360 (0.360)      Loss 0.1287 (0.1287)    Prec 96.094%
(96.094%)
 * Prec 92.610%
best acc: 92.840000
Epoch: [203][0/391]     Time 0.455 (0.455)      Data 0.414 (0.414)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [203][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0007)    Prec 100.000% (99.992%)
Epoch: [203][200/391]   Time 0.054 (0.058)      Data 0.006 (0.005)      Loss
0.0001 (0.0011)    Prec 100.000% (99.969%)
Epoch: [203][300/391]   Time 0.052 (0.057)      Data 0.005 (0.005)      Loss
0.0070 (0.0012)    Prec 99.219% (99.971%)
Validation starts
Test: [0/79]    Time 0.392 (0.392)      Loss 0.1270 (0.1270)    Prec 96.094%
(96.094%)
 * Prec 92.820%
best acc: 92.840000
Epoch: [204][0/391]     Time 0.472 (0.472)      Data 0.430 (0.430)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [204][100/391]   Time 0.047 (0.060)      Data 0.006 (0.008)      Loss
0.0005 (0.0016)    Prec 100.000% (99.961%)
Epoch: [204][200/391]   Time 0.051 (0.058)      Data 0.002 (0.005)      Loss
0.0007 (0.0014)    Prec 100.000% (99.961%)
Epoch: [204][300/391]   Time 0.048 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0012)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.335 (0.335)      Loss 0.1198 (0.1198)    Prec 96.875%
(96.875%)
 * Prec 92.630%
best acc: 92.840000
Epoch: [205][0/391]     Time 0.433 (0.433)      Data 0.380 (0.380)      Loss
0.0020 (0.0020)    Prec 100.000% (100.000%)
Epoch: [205][100/391]   Time 0.052 (0.059)      Data 0.007 (0.008)      Loss
0.0109 (0.0013)    Prec 99.219% (99.961%)
Epoch: [205][200/391]   Time 0.054 (0.057)      Data 0.005 (0.006)      Loss
0.0006 (0.0017)    Prec 100.000% (99.949%)
Epoch: [205][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0014)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.356 (0.356)      Loss 0.1129 (0.1129)    Prec 96.094%
(96.094%)
 * Prec 92.840%
best acc: 92.840000
Epoch: [206][0/391]     Time 0.423 (0.423)      Data 0.379 (0.379)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
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Epoch: [206][100/391]   Time 0.055 (0.059)      Data 0.002 (0.008)      Loss
0.0003 (0.0017)    Prec 100.000% (99.969%)
Epoch: [206][200/391]   Time 0.056 (0.057)      Data 0.002 (0.006)      Loss
0.0004 (0.0015)    Prec 100.000% (99.965%)
Epoch: [206][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0013)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.374 (0.374)      Loss 0.2161 (0.2161)    Prec 94.531%
(94.531%)
 * Prec 92.860%
best acc: 92.860000
Epoch: [207][0/391]     Time 0.408 (0.408)      Data 0.363 (0.363)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [207][100/391]   Time 0.057 (0.059)      Data 0.002 (0.007)      Loss
0.0013 (0.0017)    Prec 100.000% (99.954%)
Epoch: [207][200/391]   Time 0.050 (0.057)      Data 0.004 (0.005)      Loss
0.0002 (0.0015)    Prec 100.000% (99.961%)
Epoch: [207][300/391]   Time 0.060 (0.057)      Data 0.002 (0.005)      Loss
0.0024 (0.0016)    Prec 100.000% (99.953%)
Validation starts
Test: [0/79]    Time 0.370 (0.370)      Loss 0.1473 (0.1473)    Prec 95.312%
(95.312%)
 * Prec 92.850%
best acc: 92.860000
Epoch: [208][0/391]     Time 0.339 (0.339)      Data 0.299 (0.299)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [208][100/391]   Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.0002 (0.0013)    Prec 100.000% (99.961%)
Epoch: [208][200/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0005 (0.0010)    Prec 100.000% (99.977%)
Epoch: [208][300/391]   Time 0.053 (0.056)      Data 0.002 (0.003)      Loss
0.0003 (0.0010)    Prec 100.000% (99.977%)
Validation starts
Test: [0/79]    Time 0.354 (0.354)      Loss 0.1579 (0.1579)    Prec 96.094%
(96.094%)
 * Prec 92.780%
best acc: 92.860000
Epoch: [209][0/391]     Time 0.413 (0.413)      Data 0.374 (0.374)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [209][100/391]   Time 0.055 (0.058)      Data 0.001 (0.006)      Loss
0.0002 (0.0008)    Prec 100.000% (99.992%)
Epoch: [209][200/391]   Time 0.058 (0.057)      Data 0.002 (0.004)      Loss
0.0014 (0.0013)    Prec 100.000% (99.965%)
Epoch: [209][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0014)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.351 (0.351)      Loss 0.1939 (0.1939)    Prec 94.531%
(94.531%)
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 * Prec 92.680%
best acc: 92.860000
Epoch: [210][0/391]     Time 0.384 (0.384)      Data 0.343 (0.343)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [210][100/391]   Time 0.057 (0.059)      Data 0.002 (0.006)      Loss
0.0002 (0.0012)    Prec 100.000% (99.977%)
Epoch: [210][200/391]   Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0013)    Prec 100.000% (99.969%)
Epoch: [210][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0168 (0.0013)    Prec 99.219% (99.966%)
Validation starts
Test: [0/79]    Time 0.282 (0.282)      Loss 0.2050 (0.2050)    Prec 94.531%
(94.531%)
 * Prec 92.610%
best acc: 92.860000
Epoch: [211][0/391]     Time 0.361 (0.361)      Data 0.321 (0.321)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [211][100/391]   Time 0.054 (0.058)      Data 0.005 (0.006)      Loss
0.0002 (0.0012)    Prec 100.000% (99.954%)
Epoch: [211][200/391]   Time 0.052 (0.057)      Data 0.013 (0.004)      Loss
0.0042 (0.0010)    Prec 100.000% (99.969%)
Epoch: [211][300/391]   Time 0.049 (0.056)      Data 0.002 (0.004)      Loss
0.0033 (0.0010)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.344 (0.344)      Loss 0.1367 (0.1367)    Prec 95.312%
(95.312%)
 * Prec 92.620%
best acc: 92.860000
Epoch: [212][0/391]     Time 0.401 (0.401)      Data 0.358 (0.358)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [212][100/391]   Time 0.055 (0.059)      Data 0.006 (0.007)      Loss
0.0002 (0.0016)    Prec 100.000% (99.977%)
Epoch: [212][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0130 (0.0014)    Prec 99.219% (99.965%)
Epoch: [212][300/391]   Time 0.056 (0.056)      Data 0.002 (0.005)      Loss
0.0001 (0.0014)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.448 (0.448)      Loss 0.1191 (0.1191)    Prec 96.094%
(96.094%)
 * Prec 92.630%
best acc: 92.860000
Epoch: [213][0/391]     Time 0.360 (0.360)      Data 0.307 (0.307)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [213][100/391]   Time 0.055 (0.059)      Data 0.005 (0.008)      Loss
0.0002 (0.0010)    Prec 100.000% (99.977%)
Epoch: [213][200/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0014)    Prec 100.000% (99.965%)
Epoch: [213][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
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0.0006 (0.0014)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.319 (0.319)      Loss 0.1104 (0.1104)    Prec 96.094%
(96.094%)
 * Prec 92.630%
best acc: 92.860000
Epoch: [214][0/391]     Time 0.405 (0.405)      Data 0.359 (0.359)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [214][100/391]   Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.0004 (0.0007)    Prec 100.000% (99.985%)
Epoch: [214][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0004 (0.0008)    Prec 100.000% (99.977%)
Epoch: [214][300/391]   Time 0.054 (0.056)      Data 0.004 (0.004)      Loss
0.0013 (0.0011)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.358 (0.358)      Loss 0.1857 (0.1857)    Prec 95.312%
(95.312%)
 * Prec 92.590%
best acc: 92.860000
Epoch: [215][0/391]     Time 0.406 (0.406)      Data 0.358 (0.358)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [215][100/391]   Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.0019 (0.0015)    Prec 100.000% (99.954%)
Epoch: [215][200/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0016)    Prec 100.000% (99.953%)
Epoch: [215][300/391]   Time 0.058 (0.056)      Data 0.002 (0.004)      Loss
0.0002 (0.0015)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.354 (0.354)      Loss 0.1578 (0.1578)    Prec 94.531%
(94.531%)
 * Prec 92.600%
best acc: 92.860000
Epoch: [216][0/391]     Time 0.426 (0.426)      Data 0.378 (0.378)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [216][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0002 (0.0013)    Prec 100.000% (99.954%)
Epoch: [216][200/391]   Time 0.067 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0014)    Prec 100.000% (99.961%)
Epoch: [216][300/391]   Time 0.059 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0013)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.1007 (0.1007)    Prec 96.094%
(96.094%)
 * Prec 92.710%
best acc: 92.860000
Epoch: [217][0/391]     Time 0.405 (0.405)      Data 0.364 (0.364)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [217][100/391]   Time 0.049 (0.059)      Data 0.002 (0.007)      Loss
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0.0002 (0.0010)    Prec 100.000% (99.985%)
Epoch: [217][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0001 (0.0015)    Prec 100.000% (99.957%)
Epoch: [217][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0015)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.311 (0.311)      Loss 0.0963 (0.0963)    Prec 96.875%
(96.875%)
 * Prec 92.790%
best acc: 92.860000
Epoch: [218][0/391]     Time 0.473 (0.473)      Data 0.433 (0.433)      Loss
0.0006 (0.0006)    Prec 100.000% (100.000%)
Epoch: [218][100/391]   Time 0.051 (0.060)      Data 0.002 (0.008)      Loss
0.0005 (0.0011)    Prec 100.000% (99.961%)
Epoch: [218][200/391]   Time 0.051 (0.058)      Data 0.002 (0.005)      Loss
0.0002 (0.0009)    Prec 100.000% (99.969%)
Epoch: [218][300/391]   Time 0.063 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0010)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.302 (0.302)      Loss 0.1565 (0.1565)    Prec 95.312%
(95.312%)
 * Prec 92.990%
best acc: 92.990000
Epoch: [219][0/391]     Time 0.397 (0.397)      Data 0.356 (0.356)      Loss
0.0081 (0.0081)    Prec 99.219% (99.219%)
Epoch: [219][100/391]   Time 0.046 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0012)    Prec 100.000% (99.969%)
Epoch: [219][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0005 (0.0014)    Prec 100.000% (99.969%)
Epoch: [219][300/391]   Time 0.059 (0.056)      Data 0.002 (0.004)      Loss
0.0022 (0.0014)    Prec 100.000% (99.958%)
Validation starts
Test: [0/79]    Time 0.273 (0.273)      Loss 0.1227 (0.1227)    Prec 95.312%
(95.312%)
 * Prec 92.730%
best acc: 92.990000
Epoch: [220][0/391]     Time 0.389 (0.389)      Data 0.344 (0.344)      Loss
0.0010 (0.0010)    Prec 100.000% (100.000%)
Epoch: [220][100/391]   Time 0.055 (0.058)      Data 0.002 (0.005)      Loss
0.0027 (0.0011)    Prec 100.000% (99.969%)
Epoch: [220][200/391]   Time 0.062 (0.056)      Data 0.002 (0.004)      Loss
0.0007 (0.0015)    Prec 100.000% (99.949%)
Epoch: [220][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0030 (0.0014)    Prec 100.000% (99.956%)
Validation starts
Test: [0/79]    Time 0.273 (0.273)      Loss 0.1214 (0.1214)    Prec 96.875%
(96.875%)
 * Prec 92.640%
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best acc: 92.990000
Epoch: [221][0/391]     Time 0.456 (0.456)      Data 0.404 (0.404)      Loss
0.0033 (0.0033)    Prec 100.000% (100.000%)
Epoch: [221][100/391]   Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.0002 (0.0011)    Prec 100.000% (99.969%)
Epoch: [221][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0007 (0.0013)    Prec 100.000% (99.961%)
Epoch: [221][300/391]   Time 0.051 (0.056)      Data 0.002 (0.003)      Loss
0.0002 (0.0013)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.326 (0.326)      Loss 0.1326 (0.1326)    Prec 96.094%
(96.094%)
 * Prec 92.660%
best acc: 92.990000
Epoch: [222][0/391]     Time 0.385 (0.385)      Data 0.346 (0.346)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [222][100/391]   Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.0029 (0.0011)    Prec 100.000% (99.969%)
Epoch: [222][200/391]   Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0004 (0.0015)    Prec 100.000% (99.949%)
Epoch: [222][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0001 (0.0013)    Prec 100.000% (99.964%)
Validation starts
Test: [0/79]    Time 0.383 (0.383)      Loss 0.0944 (0.0944)    Prec 97.656%
(97.656%)
 * Prec 92.850%
best acc: 92.990000
Epoch: [223][0/391]     Time 0.391 (0.391)      Data 0.327 (0.327)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [223][100/391]   Time 0.059 (0.059)      Data 0.002 (0.006)      Loss
0.0001 (0.0011)    Prec 100.000% (99.977%)
Epoch: [223][200/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0007 (0.0013)    Prec 100.000% (99.977%)
Epoch: [223][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0004 (0.0012)    Prec 100.000% (99.977%)
Validation starts
Test: [0/79]    Time 0.309 (0.309)      Loss 0.1303 (0.1303)    Prec 96.875%
(96.875%)
 * Prec 92.780%
best acc: 92.990000
Epoch: [224][0/391]     Time 0.357 (0.357)      Data 0.312 (0.312)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [224][100/391]   Time 0.054 (0.058)      Data 0.002 (0.005)      Loss
0.0006 (0.0008)    Prec 100.000% (99.992%)
Epoch: [224][200/391]   Time 0.061 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0008)    Prec 100.000% (99.984%)
Epoch: [224][300/391]   Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.0003 (0.0009)    Prec 100.000% (99.977%)
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Validation starts
Test: [0/79]    Time 0.360 (0.360)      Loss 0.1263 (0.1263)    Prec 95.312%
(95.312%)
 * Prec 92.750%
best acc: 92.990000
Epoch: [225][0/391]     Time 0.470 (0.470)      Data 0.421 (0.421)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [225][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0002 (0.0005)    Prec 100.000% (100.000%)
Epoch: [225][200/391]   Time 0.049 (0.057)      Data 0.003 (0.005)      Loss
0.0002 (0.0006)    Prec 100.000% (99.996%)
Epoch: [225][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0008)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.335 (0.335)      Loss 0.1643 (0.1643)    Prec 96.875%
(96.875%)
 * Prec 92.920%
best acc: 92.990000
Epoch: [226][0/391]     Time 0.393 (0.393)      Data 0.353 (0.353)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [226][100/391]   Time 0.048 (0.058)      Data 0.002 (0.006)      Loss
0.0002 (0.0013)    Prec 100.000% (99.977%)
Epoch: [226][200/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0010)    Prec 100.000% (99.984%)
Epoch: [226][300/391]   Time 0.064 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0011)    Prec 100.000% (99.979%)
Validation starts
Test: [0/79]    Time 0.259 (0.259)      Loss 0.1742 (0.1742)    Prec 95.312%
(95.312%)
 * Prec 92.920%
best acc: 92.990000
Epoch: [227][0/391]     Time 0.371 (0.371)      Data 0.331 (0.331)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [227][100/391]   Time 0.053 (0.059)      Data 0.002 (0.006)      Loss
0.0001 (0.0009)    Prec 100.000% (99.969%)
Epoch: [227][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0004 (0.0009)    Prec 100.000% (99.969%)
Epoch: [227][300/391]   Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0004 (0.0009)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.308 (0.308)      Loss 0.1348 (0.1348)    Prec 97.656%
(97.656%)
 * Prec 92.960%
best acc: 92.990000
Epoch: [228][0/391]     Time 0.472 (0.472)      Data 0.422 (0.422)      Loss
0.0015 (0.0015)    Prec 100.000% (100.000%)
Epoch: [228][100/391]   Time 0.055 (0.059)      Data 0.002 (0.008)      Loss
0.0002 (0.0011)    Prec 100.000% (99.961%)
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Epoch: [228][200/391]   Time 0.052 (0.057)      Data 0.003 (0.005)      Loss
0.0003 (0.0010)    Prec 100.000% (99.961%)
Epoch: [228][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0007 (0.0010)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.1675 (0.1675)    Prec 95.312%
(95.312%)
 * Prec 92.810%
best acc: 92.990000
Epoch: [229][0/391]     Time 0.443 (0.443)      Data 0.394 (0.394)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [229][100/391]   Time 0.058 (0.059)      Data 0.002 (0.007)      Loss
0.0001 (0.0009)    Prec 100.000% (99.969%)
Epoch: [229][200/391]   Time 0.065 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0007)    Prec 100.000% (99.984%)
Epoch: [229][300/391]   Time 0.063 (0.056)      Data 0.007 (0.004)      Loss
0.0007 (0.0007)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.1352 (0.1352)    Prec 97.656%
(97.656%)
 * Prec 92.940%
best acc: 92.990000
Epoch: [230][0/391]     Time 0.419 (0.419)      Data 0.376 (0.376)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [230][100/391]   Time 0.056 (0.060)      Data 0.002 (0.007)      Loss
0.0003 (0.0008)    Prec 100.000% (99.969%)
Epoch: [230][200/391]   Time 0.055 (0.058)      Data 0.008 (0.005)      Loss
0.0018 (0.0011)    Prec 100.000% (99.961%)
Epoch: [230][300/391]   Time 0.064 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0011)    Prec 100.000% (99.964%)
Validation starts
Test: [0/79]    Time 0.428 (0.428)      Loss 0.1454 (0.1454)    Prec 97.656%
(97.656%)
 * Prec 92.900%
best acc: 92.990000
Epoch: [231][0/391]     Time 0.456 (0.456)      Data 0.413 (0.413)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [231][100/391]   Time 0.065 (0.059)      Data 0.002 (0.007)      Loss
0.0006 (0.0012)    Prec 100.000% (99.992%)
Epoch: [231][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0025 (0.0010)    Prec 100.000% (99.984%)
Epoch: [231][300/391]   Time 0.057 (0.057)      Data 0.002 (0.004)      Loss
0.0001 (0.0008)    Prec 100.000% (99.990%)
Validation starts
Test: [0/79]    Time 0.326 (0.326)      Loss 0.1549 (0.1549)    Prec 96.094%
(96.094%)
 * Prec 92.840%
best acc: 92.990000
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Epoch: [232][0/391]     Time 0.410 (0.410)      Data 0.363 (0.363)      Loss
0.0006 (0.0006)    Prec 100.000% (100.000%)
Epoch: [232][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0114 (0.0009)    Prec 99.219% (99.977%)
Epoch: [232][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0009)    Prec 100.000% (99.981%)
Epoch: [232][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0065 (0.0009)    Prec 99.219% (99.974%)
Validation starts
Test: [0/79]    Time 0.376 (0.376)      Loss 0.1510 (0.1510)    Prec 96.875%
(96.875%)
 * Prec 92.820%
best acc: 92.990000
Epoch: [233][0/391]     Time 0.422 (0.422)      Data 0.379 (0.379)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [233][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.0002 (0.0007)    Prec 100.000% (99.985%)
Epoch: [233][200/391]   Time 0.054 (0.057)      Data 0.002 (0.006)      Loss
0.0006 (0.0009)    Prec 100.000% (99.973%)
Epoch: [233][300/391]   Time 0.057 (0.056)      Data 0.002 (0.005)      Loss
0.0005 (0.0009)    Prec 100.000% (99.977%)
Validation starts
Test: [0/79]    Time 0.370 (0.370)      Loss 0.1297 (0.1297)    Prec 96.094%
(96.094%)
 * Prec 92.840%
best acc: 92.990000
Epoch: [234][0/391]     Time 0.450 (0.450)      Data 0.404 (0.404)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [234][100/391]   Time 0.055 (0.060)      Data 0.002 (0.007)      Loss
0.0007 (0.0009)    Prec 100.000% (99.977%)
Epoch: [234][200/391]   Time 0.055 (0.058)      Data 0.006 (0.005)      Loss
0.0002 (0.0011)    Prec 100.000% (99.973%)
Epoch: [234][300/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0006 (0.0010)    Prec 100.000% (99.974%)
Validation starts
Test: [0/79]    Time 0.408 (0.408)      Loss 0.1288 (0.1288)    Prec 97.656%
(97.656%)
 * Prec 92.940%
best acc: 92.990000
Epoch: [235][0/391]     Time 0.421 (0.421)      Data 0.378 (0.378)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [235][100/391]   Time 0.054 (0.059)      Data 0.001 (0.007)      Loss
0.0002 (0.0009)    Prec 100.000% (99.969%)
Epoch: [235][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0010)    Prec 100.000% (99.969%)
Epoch: [235][300/391]   Time 0.057 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0010)    Prec 100.000% (99.969%)
Validation starts
```

```
Test: [0/79]    Time 0.360 (0.360)      Loss 0.1540 (0.1540)    Prec 96.875%
(96.875%)
 * Prec 92.830%
best acc: 92.990000
Epoch: [236][0/391]     Time 0.441 (0.441)      Data 0.395 (0.395)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [236][100/391]   Time 0.055 (0.059)      Data 0.002 (0.007)      Loss
0.0002 (0.0014)    Prec 100.000% (99.930%)
Epoch: [236][200/391]   Time 0.063 (0.058)      Data 0.002 (0.005)      Loss
0.0002 (0.0010)    Prec 100.000% (99.961%)
Epoch: [236][300/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0012)    Prec 100.000% (99.961%)
Validation starts
Test: [0/79]    Time 0.332 (0.332)      Loss 0.1340 (0.1340)    Prec 97.656%
(97.656%)
 * Prec 92.830%
best acc: 92.990000
Epoch: [237][0/391]     Time 0.421 (0.421)      Data 0.377 (0.377)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [237][100/391]   Time 0.055 (0.059)      Data 0.002 (0.008)      Loss
0.0002 (0.0016)    Prec 100.000% (99.961%)
Epoch: [237][200/391]   Time 0.060 (0.057)      Data 0.004 (0.005)      Loss
0.0038 (0.0015)    Prec 100.000% (99.961%)
Epoch: [237][300/391]   Time 0.042 (0.057)      Data 0.002 (0.005)      Loss
0.0005 (0.0012)    Prec 100.000% (99.974%)
Validation starts
Test: [0/79]    Time 0.350 (0.350)      Loss 0.1388 (0.1388)    Prec 96.875%
(96.875%)
 * Prec 92.680%
best acc: 92.990000
Epoch: [238][0/391]     Time 0.439 (0.439)      Data 0.394 (0.394)      Loss
0.0009 (0.0009)    Prec 100.000% (100.000%)
Epoch: [238][100/391]   Time 0.063 (0.059)      Data 0.002 (0.007)      Loss
0.0001 (0.0008)    Prec 100.000% (99.985%)
Epoch: [238][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0074 (0.0009)    Prec 99.219% (99.977%)
Epoch: [238][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0009)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.407 (0.407)      Loss 0.1749 (0.1749)    Prec 96.094%
(96.094%)
 * Prec 92.690%
best acc: 92.990000
Epoch: [239][0/391]     Time 0.304 (0.304)      Data 0.264 (0.264)      Loss
0.0012 (0.0012)    Prec 100.000% (100.000%)
Epoch: [239][100/391]   Time 0.055 (0.058)      Data 0.002 (0.006)      Loss
0.0002 (0.0011)    Prec 100.000% (99.961%)
Epoch: [239][200/391]   Time 0.049 (0.056)      Data 0.002 (0.004)      Loss
```

```
0.0002 (0.0011)    Prec 100.000% (99.961%)
Epoch: [239][300/391]   Time 0.059 (0.056)      Data 0.002 (0.004)      Loss
0.0103 (0.0010)    Prec 99.219% (99.964%)
Validation starts
Test: [0/79]    Time 0.362 (0.362)      Loss 0.1812 (0.1812)    Prec 96.094%
(96.094%)
 * Prec 92.900%
best acc: 92.990000
Epoch: [240][0/391]     Time 0.410 (0.410)      Data 0.363 (0.363)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [240][100/391]   Time 0.054 (0.058)      Data 0.002 (0.007)      Loss
0.0001 (0.0008)    Prec 100.000% (99.985%)
Epoch: [240][200/391]   Time 0.055 (0.057)      Data 0.002 (0.006)      Loss
0.0002 (0.0010)    Prec 100.000% (99.981%)
Epoch: [240][300/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0009)    Prec 100.000% (99.982%)
Validation starts
Test: [0/79]    Time 0.322 (0.322)      Loss 0.1598 (0.1598)    Prec 96.094%
(96.094%)
 * Prec 92.860%
best acc: 92.990000
Epoch: [241][0/391]     Time 0.416 (0.416)      Data 0.380 (0.380)      Loss
0.0012 (0.0012)    Prec 100.000% (100.000%)
Epoch: [241][100/391]   Time 0.052 (0.059)      Data 0.006 (0.008)      Loss
0.0002 (0.0013)    Prec 100.000% (99.946%)
Epoch: [241][200/391]   Time 0.058 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0010)    Prec 100.000% (99.957%)
Epoch: [241][300/391]   Time 0.054 (0.056)      Data 0.007 (0.004)      Loss
0.0002 (0.0009)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.355 (0.355)      Loss 0.1653 (0.1653)    Prec 96.094%
(96.094%)
 * Prec 92.950%
best acc: 92.990000
Epoch: [242][0/391]     Time 0.402 (0.402)      Data 0.355 (0.355)      Loss
0.0008 (0.0008)    Prec 100.000% (100.000%)
Epoch: [242][100/391]   Time 0.052 (0.059)      Data 0.002 (0.007)      Loss
0.0002 (0.0010)    Prec 100.000% (99.977%)
Epoch: [242][200/391]   Time 0.059 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0009)    Prec 100.000% (99.981%)
Epoch: [242][300/391]   Time 0.058 (0.057)      Data 0.002 (0.004)      Loss
0.0023 (0.0008)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.343 (0.343)      Loss 0.1412 (0.1412)    Prec 96.875%
(96.875%)
 * Prec 92.980%
best acc: 92.990000
Epoch: [243][0/391]     Time 0.387 (0.387)      Data 0.338 (0.338)      Loss
```

```
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [243][100/391]   Time 0.054 (0.059)      Data 0.002 (0.006)      Loss
0.0008 (0.0008)    Prec 100.000% (99.992%)
Epoch: [243][200/391]   Time 0.055 (0.057)      Data 0.004 (0.005)      Loss
0.0004 (0.0008)    Prec 100.000% (99.988%)
Epoch: [243][300/391]   Time 0.070 (0.057)      Data 0.002 (0.005)      Loss
0.0001 (0.0008)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.383 (0.383)      Loss 0.1883 (0.1883)    Prec 96.875%
(96.875%)
 * Prec 92.870%
best acc: 92.990000
Epoch: [244][0/391]     Time 0.454 (0.454)      Data 0.414 (0.414)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [244][100/391]   Time 0.054 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0006)    Prec 100.000% (99.977%)
Epoch: [244][200/391]   Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0010)    Prec 100.000% (99.969%)
Epoch: [244][300/391]   Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0012)    Prec 100.000% (99.966%)
Validation starts
Test: [0/79]    Time 0.295 (0.295)      Loss 0.1870 (0.1870)    Prec 96.875%
(96.875%)
 * Prec 92.810%
best acc: 92.990000
Epoch: [245][0/391]     Time 0.413 (0.413)      Data 0.369 (0.369)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [245][100/391]   Time 0.052 (0.059)      Data 0.002 (0.007)      Loss
0.0003 (0.0010)    Prec 100.000% (99.985%)
Epoch: [245][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0021 (0.0008)    Prec 100.000% (99.988%)
Epoch: [245][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0001 (0.0007)    Prec 100.000% (99.990%)
Validation starts
Test: [0/79]    Time 0.264 (0.264)      Loss 0.1719 (0.1719)    Prec 96.094%
(96.094%)
 * Prec 92.900%
best acc: 92.990000
Epoch: [246][0/391]     Time 0.372 (0.372)      Data 0.328 (0.328)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [246][100/391]   Time 0.052 (0.059)      Data 0.002 (0.007)      Loss
0.0002 (0.0006)    Prec 100.000% (99.985%)
Epoch: [246][200/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.0003 (0.0006)    Prec 100.000% (99.992%)
Epoch: [246][300/391]   Time 0.047 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0006)    Prec 100.000% (99.990%)
Validation starts
Test: [0/79]    Time 0.387 (0.387)      Loss 0.1435 (0.1435)    Prec 97.656%
```

```
(97.656%)
 * Prec 92.800%
best acc: 92.990000
Epoch: [247][0/391]     Time 0.461 (0.461)      Data 0.405 (0.405)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [247][100/391]   Time 0.054 (0.060)      Data 0.002 (0.008)      Loss
0.0003 (0.0007)    Prec 100.000% (99.992%)
Epoch: [247][200/391]   Time 0.052 (0.058)      Data 0.002 (0.005)      Loss
0.0007 (0.0009)    Prec 100.000% (99.977%)
Epoch: [247][300/391]   Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0008)    Prec 100.000% (99.982%)
Validation starts
Test: [0/79]    Time 0.368 (0.368)      Loss 0.1656 (0.1656)    Prec 96.094%
(96.094%)
 * Prec 93.000%
best acc: 93.000000
Epoch: [248][0/391]     Time 0.382 (0.382)      Data 0.342 (0.342)      Loss
0.0004 (0.0004)    Prec 100.000% (100.000%)
Epoch: [248][100/391]   Time 0.055 (0.059)      Data 0.004 (0.006)      Loss
0.0001 (0.0006)    Prec 100.000% (99.992%)
Epoch: [248][200/391]   Time 0.052 (0.057)      Data 0.004 (0.005)      Loss
0.0001 (0.0006)    Prec 100.000% (99.992%)
Epoch: [248][300/391]   Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0006)    Prec 100.000% (99.992%)
Validation starts
Test: [0/79]    Time 0.401 (0.401)      Loss 0.1422 (0.1422)    Prec 96.094%
(96.094%)
 * Prec 92.840%
best acc: 93.000000
Epoch: [249][0/391]     Time 0.445 (0.445)      Data 0.401 (0.401)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [249][100/391]   Time 0.049 (0.059)      Data 0.002 (0.007)      Loss
0.0010 (0.0009)    Prec 100.000% (99.961%)
Epoch: [249][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0009)    Prec 100.000% (99.973%)
Epoch: [249][300/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0001 (0.0010)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.352 (0.352)      Loss 0.1474 (0.1474)    Prec 96.875%
(96.875%)
 * Prec 92.830%
best acc: 93.000000
Epoch: [250][0/391]     Time 0.394 (0.394)      Data 0.354 (0.354)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [250][100/391]   Time 0.053 (0.059)      Data 0.002 (0.006)      Loss
0.0001 (0.0007)    Prec 100.000% (99.985%)
Epoch: [250][200/391]   Time 0.062 (0.057)      Data 0.002 (0.004)      Loss
0.0001 (0.0009)    Prec 100.000% (99.977%)
```

```
Epoch: [250][300/391]   Time 0.056 (0.056)      Data 0.002 (0.004)      Loss
0.0013 (0.0009)    Prec 100.000% (99.979%)
Validation starts
Test: [0/79]    Time 0.316 (0.316)      Loss 0.1543 (0.1543)    Prec 96.094%
(96.094%)
 * Prec 92.730%
best acc: 93.000000
Epoch: [251][0/391]     Time 0.495 (0.495)      Data 0.454 (0.454)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [251][100/391]   Time 0.058 (0.060)      Data 0.002 (0.008)      Loss
0.0003 (0.0008)    Prec 100.000% (99.977%)
Epoch: [251][200/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0007)    Prec 100.000% (99.977%)
Epoch: [251][300/391]   Time 0.058 (0.057)      Data 0.002 (0.004)      Loss
0.0008 (0.0006)    Prec 100.000% (99.984%)
Validation starts
Test: [0/79]    Time 0.388 (0.388)      Loss 0.1481 (0.1481)    Prec 96.094%
(96.094%)
 * Prec 92.770%
best acc: 93.000000
Epoch: [252][0/391]     Time 0.477 (0.477)      Data 0.437 (0.437)      Loss
0.0013 (0.0013)    Prec 100.000% (100.000%)
Epoch: [252][100/391]   Time 0.058 (0.060)      Data 0.002 (0.008)      Loss
0.0002 (0.0011)    Prec 100.000% (99.969%)
Epoch: [252][200/391]   Time 0.060 (0.058)      Data 0.015 (0.006)      Loss
0.0009 (0.0009)    Prec 100.000% (99.981%)
Epoch: [252][300/391]   Time 0.057 (0.057)      Data 0.002 (0.005)      Loss
0.0001 (0.0009)    Prec 100.000% (99.982%)
Validation starts
Test: [0/79]    Time 0.412 (0.412)      Loss 0.1597 (0.1597)    Prec 96.094%
(96.094%)
 * Prec 92.540%
best acc: 93.000000
Epoch: [253][0/391]     Time 0.466 (0.466)      Data 0.410 (0.410)      Loss
0.0002 (0.0002)    Prec 100.000% (100.000%)
Epoch: [253][100/391]   Time 0.055 (0.059)      Data 0.002 (0.006)      Loss
0.0009 (0.0007)    Prec 100.000% (99.985%)
Epoch: [253][200/391]   Time 0.049 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0008)    Prec 100.000% (99.984%)
Epoch: [253][300/391]   Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0003 (0.0007)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.289 (0.289)      Loss 0.1498 (0.1498)    Prec 96.875%
(96.875%)
 * Prec 92.900%
best acc: 93.000000
Epoch: [254][0/391]     Time 0.457 (0.457)      Data 0.413 (0.413)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
```

```
Epoch: [254][100/391]   Time 0.050 (0.059)      Data 0.002 (0.007)      Loss
0.0007 (0.0012)    Prec 100.000% (99.954%)
Epoch: [254][200/391]   Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0008)    Prec 100.000% (99.973%)
Epoch: [254][300/391]   Time 0.050 (0.056)      Data 0.002 (0.005)      Loss
0.0002 (0.0007)    Prec 100.000% (99.979%)
Validation starts
Test: [0/79]    Time 0.364 (0.364)      Loss 0.1558 (0.1558)    Prec 96.094%
(96.094%)
 * Prec 92.820%
best acc: 93.000000
Epoch: [255][0/391]     Time 0.372 (0.372)      Data 0.331 (0.331)      Loss
0.0022 (0.0022)    Prec 100.000% (100.000%)
Epoch: [255][100/391]   Time 0.054 (0.058)      Data 0.002 (0.006)      Loss
0.0002 (0.0010)    Prec 100.000% (99.969%)
Epoch: [255][200/391]   Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.0016 (0.0010)    Prec 100.000% (99.969%)
Epoch: [255][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0002 (0.0010)    Prec 100.000% (99.969%)
Validation starts
Test: [0/79]    Time 0.282 (0.282)      Loss 0.1421 (0.1421)    Prec 97.656%
(97.656%)
 * Prec 92.790%
best acc: 93.000000
Epoch: [256][0/391]     Time 0.395 (0.395)      Data 0.351 (0.351)      Loss
0.0038 (0.0038)    Prec 100.000% (100.000%)
Epoch: [256][100/391]   Time 0.056 (0.058)      Data 0.002 (0.006)      Loss
0.0001 (0.0009)    Prec 100.000% (99.969%)
Epoch: [256][200/391]   Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0003 (0.0009)    Prec 100.000% (99.969%)
Epoch: [256][300/391]   Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.0003 (0.0009)    Prec 100.000% (99.971%)
Validation starts
Test: [0/79]    Time 0.324 (0.324)      Loss 0.1390 (0.1390)    Prec 97.656%
(97.656%)
 * Prec 92.970%
best acc: 93.000000
Epoch: [257][0/391]     Time 0.443 (0.443)      Data 0.400 (0.400)      Loss
0.0003 (0.0003)    Prec 100.000% (100.000%)
Epoch: [257][100/391]   Time 0.061 (0.059)      Data 0.002 (0.007)      Loss
0.0005 (0.0005)    Prec 100.000% (99.992%)
Epoch: [257][200/391]   Time 0.052 (0.057)      Data 0.002 (0.005)      Loss
0.0002 (0.0005)    Prec 100.000% (99.996%)
Epoch: [257][300/391]   Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0009 (0.0004)    Prec 100.000% (99.997%)
Validation starts
Test: [0/79]    Time 0.296 (0.296)      Loss 0.1751 (0.1751)    Prec 96.875%
(96.875%)
```

```
 * Prec 92.680%
best acc: 93.000000
Epoch: [258][0/391]     Time 0.447 (0.447)      Data 0.405 (0.405)      Loss
0.0001 (0.0001)    Prec 100.000% (100.000%)
Epoch: [258][100/391]   Time 0.056 (0.059)      Data 0.002 (0.007)      Loss
0.0001 (0.0004)    Prec 100.000% (99.992%)
Epoch: [258][200/391]   Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.0005 (0.0005)    Prec 100.000% (99.988%)
Epoch: [258][300/391]   Time 0.055 (0.056)      Data 0.002 (0.004)      Loss
0.0004 (0.0006)    Prec 100.000% (99.987%)
Validation starts
Test: [0/79]    Time 0.341 (0.341)      Loss 0.1534 (0.1534)    Prec 96.875%
(96.875%)
 * Prec 92.850%
best acc: 93.000000
Epoch: [259][0/391]     Time 0.377 (0.377)      Data 0.323 (0.323)      Loss
0.0007 (0.0007)    Prec 100.000% (100.000%)
Epoch: [259][100/391]   Time 0.059 (0.059)      Data 0.002 (0.008)      Loss
0.0026 (0.0008)    Prec 100.000% (99.977%)
Epoch: [259][200/391]   Time 0.056 (0.057)      Data 0.002 (0.005)      Loss
0.0006 (0.0007)    Prec 100.000% (99.984%)
Epoch: [259][300/391]   Time 0.071 (0.057)      Data 0.002 (0.004)      Loss
0.0002 (0.0007)    Prec 100.000% (99.982%)
Validation starts
Test: [0/79]    Time 0.358 (0.358)      Loss 0.1598 (0.1598)    Prec 96.875%
(96.875%)
 * Prec 92.890%
best acc: 93.000000
```

[2]:
```python
PATH = "result/VGG16_quant_4bit_hw7/model_best.pth.tar"
checkpoint = torch.load(PATH)
model.load_state_dict(checkpoint['state_dict'])
device = torch.device("cuda")

model.cuda()
model.eval()

test_loss = 0
correct = 0

with torch.no_grad():
    for data, target in testloader:
        data, target = data.to(device), target.to(device) # loading to GPU
        output = model(data)
        pred = output.argmax(dim=1, keepdim=True)
        correct += pred.eq(target.view_as(pred)).sum().item()
```

```
test_loss /= len(testloader.dataset)

print('\nTest set: Accuracy: {}/{} ({:.0f}%)\n'.format(
        correct, len(testloader.dataset),
        100. * correct / len(testloader.dataset)))
```

```
Test set: Accuracy: 9300/10000 (93%)
```

0.1 Unstructured Pruning

[3]:
```
import copy
import torch.nn.utils.prune as prune

# Assuming QuantConv2d is your custom class inheriting from torch.nn.Module
# Make sure to import it

# Create a deep copy of the model
copied_model = copy.deepcopy(model)

# Iterate over copied_model modules and prune QuantConv2d layers
for name, module in copied_model.named_modules():
    if isinstance(module, QuantConv2d):
        prune.l1_unstructured(module, name='weight', amount=0.80)  # You can␣
 ↪adjust the pruning amount
```

[4]:
```
copied_model.cuda()
copied_model.eval()

test_loss = 0
correct = 0

with torch.no_grad():
    for data, target in testloader:
        data, target = data.to(device), target.to(device)  # loading to GPU
        output = copied_model(data)  # use copied_model instead of model
        pred = output.argmax(dim=1, keepdim=True)
        correct += pred.eq(target.view_as(pred)).sum().item()

test_loss /= len(testloader.dataset)

print('\nTest set: Accuracy: {}/{} ({:.0f}%)\n'.format(
        correct, len(testloader.dataset),
        100. * correct / len(testloader.dataset)))
```

```
Test set: Accuracy: 1055/10000 (11%)
```

[6]:
```
# Further fine-tuning, but you can stop here
lr = 4e-2  #hyperparameter 2
weight_decay = 1e-4 #hyperparameter 3
epochs = 100 #hyperparameter 4
best_prec = 0 #hyperparameter 5

#model = nn.DataParallel(model).cuda()
copied_model.cuda()
criterion = nn.CrossEntropyLoss().cuda()
optimizer = torch.optim.SGD(copied_model.parameters(), lr=lr, momentum=0.9,␣
 ↪weight_decay=weight_decay)
#cudnn.benchmark = True

if not os.path.exists('result'):
    os.makedirs('result')
fdir = 'result/'+str(model_name)+'_finetuning'
if not os.path.exists(fdir):
    os.makedirs(fdir)


for epoch in range(0, epochs):
    adjust_learning_rate(optimizer, epoch)

    train(trainloader, copied_model, criterion, optimizer, epoch)

    # evaluate on test set
    print("Validation starts")
    prec = validate(testloader, copied_model, criterion)

    # remember best precision and save checkpoint
    is_best = prec > best_prec
    best_prec = max(prec,best_prec)
    print('best acc: {:1f}'.format(best_prec))
    save_checkpoint({
        'epoch': epoch + 1,
        'state_dict': copied_model.state_dict(),
        'best_prec': best_prec,
        'optimizer': optimizer.state_dict(),
    }, is_best, fdir)
```

```
Epoch: [0][0/391]       Time 0.533 (0.533)      Data 0.243 (0.243)      Loss
3.4165 (3.4165)    Prec 36.719% (36.719%)
Epoch: [0][100/391]     Time 0.053 (0.060)      Data 0.002 (0.004)      Loss
0.6189 (0.9439)    Prec 78.906% (72.509%)
Epoch: [0][200/391]     Time 0.055 (0.058)      Data 0.001 (0.003)      Loss
```

```
0.2838 (0.6465)    Prec 90.625% (80.344%)
Epoch: [0][300/391]     Time 0.052 (0.057)      Data 0.001 (0.002)      Loss
0.2638 (0.5258)    Prec 93.750% (83.651%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.3489 (0.3489)    Prec 89.062%
(89.062%)
 * Prec 85.710%
best acc: 85.710000
Epoch: [1][0/391]       Time 0.284 (0.284)      Data 0.234 (0.234)      Loss
0.1898 (0.1898)    Prec 92.969% (92.969%)
Epoch: [1][100/391]     Time 0.055 (0.057)      Data 0.001 (0.004)      Loss
0.1852 (0.1883)    Prec 93.750% (93.773%)
Epoch: [1][200/391]     Time 0.057 (0.056)      Data 0.001 (0.003)      Loss
0.1663 (0.1902)    Prec 92.188% (93.645%)
Epoch: [1][300/391]     Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.1897 (0.1869)    Prec 94.531% (93.675%)
Validation starts
Test: [0/79]    Time 0.248 (0.248)      Loss 0.2048 (0.2048)    Prec 92.188%
(92.188%)
 * Prec 88.590%
best acc: 88.590000
Epoch: [2][0/391]       Time 0.298 (0.298)      Data 0.254 (0.254)      Loss
0.1384 (0.1384)    Prec 94.531% (94.531%)
Epoch: [2][100/391]     Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0894 (0.1447)    Prec 96.875% (95.003%)
Epoch: [2][200/391]     Time 0.057 (0.057)      Data 0.002 (0.003)      Loss
0.0948 (0.1474)    Prec 96.875% (94.924%)
Epoch: [2][300/391]     Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.1942 (0.1476)    Prec 92.188% (94.882%)
Validation starts
Test: [0/79]    Time 0.229 (0.229)      Loss 0.2228 (0.2228)    Prec 92.188%
(92.188%)
 * Prec 89.310%
best acc: 89.310000
Epoch: [3][0/391]       Time 0.279 (0.279)      Data 0.232 (0.232)      Loss
0.1123 (0.1123)    Prec 96.875% (96.875%)
Epoch: [3][100/391]     Time 0.055 (0.057)      Data 0.001 (0.004)      Loss
0.0928 (0.1276)    Prec 97.656% (95.575%)
Epoch: [3][200/391]     Time 0.055 (0.056)      Data 0.001 (0.003)      Loss
0.0597 (0.1247)    Prec 97.656% (95.596%)
Epoch: [3][300/391]     Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.1036 (0.1273)    Prec 95.312% (95.528%)
Validation starts
Test: [0/79]    Time 0.212 (0.212)      Loss 0.2350 (0.2350)    Prec 90.625%
(90.625%)
 * Prec 89.450%
best acc: 89.450000
Epoch: [4][0/391]       Time 0.298 (0.298)      Data 0.251 (0.251)      Loss
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0.1563 (0.1563)    Prec 92.969% (92.969%)
Epoch: [4][100/391]     Time 0.058 (0.058)      Data 0.001 (0.004)      Loss
0.0471 (0.1143)    Prec 98.438% (96.171%)
Epoch: [4][200/391]     Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0722 (0.1143)    Prec 96.875% (96.125%)
Epoch: [4][300/391]     Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0837 (0.1159)    Prec 96.094% (96.050%)
Validation starts
Test: [0/79]    Time 0.268 (0.268)      Loss 0.2925 (0.2925)    Prec 90.625%
(90.625%)
 * Prec 89.220%
best acc: 89.450000
Epoch: [5][0/391]       Time 0.302 (0.302)      Data 0.250 (0.250)      Loss
0.1592 (0.1592)    Prec 92.969% (92.969%)
Epoch: [5][100/391]     Time 0.051 (0.058)      Data 0.002 (0.004)      Loss
0.0478 (0.0933)    Prec 98.438% (96.651%)
Epoch: [5][200/391]     Time 0.058 (0.057)      Data 0.001 (0.003)      Loss
0.0839 (0.0977)    Prec 97.656% (96.482%)
Epoch: [5][300/391]     Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.1042 (0.0987)    Prec 95.312% (96.457%)
Validation starts
Test: [0/79]    Time 0.208 (0.208)      Loss 0.2529 (0.2529)    Prec 92.188%
(92.188%)
 * Prec 89.520%
best acc: 89.520000
Epoch: [6][0/391]       Time 0.294 (0.294)      Data 0.245 (0.245)      Loss
0.0706 (0.0706)    Prec 96.094% (96.094%)
Epoch: [6][100/391]     Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0481 (0.0953)    Prec 98.438% (96.705%)
Epoch: [6][200/391]     Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.1084 (0.0978)    Prec 96.094% (96.533%)
Epoch: [6][300/391]     Time 0.053 (0.056)      Data 0.001 (0.002)      Loss
0.0577 (0.0980)    Prec 99.219% (96.577%)
Validation starts
Test: [0/79]    Time 0.211 (0.211)      Loss 0.2190 (0.2190)    Prec 93.750%
(93.750%)
 * Prec 89.040%
best acc: 89.520000
Epoch: [7][0/391]       Time 0.280 (0.280)      Data 0.230 (0.230)      Loss
0.0332 (0.0332)    Prec 100.000% (100.000%)
Epoch: [7][100/391]     Time 0.057 (0.058)      Data 0.001 (0.004)      Loss
0.0835 (0.0909)    Prec 95.312% (96.875%)
Epoch: [7][200/391]     Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0883 (0.0871)    Prec 97.656% (96.964%)
Epoch: [7][300/391]     Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0674 (0.0887)    Prec 97.656% (96.909%)
Validation starts
Test: [0/79]    Time 0.207 (0.207)      Loss 0.2180 (0.2180)    Prec 92.188%
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(92.188%)
 * Prec 89.060%
best acc: 89.520000
Epoch: [8][0/391]       Time 0.280 (0.280)      Data 0.232 (0.232)      Loss
0.0759 (0.0759)    Prec 96.875% (96.875%)
Epoch: [8][100/391]     Time 0.059 (0.058)      Data 0.001 (0.004)      Loss
0.0498 (0.0767)    Prec 97.656% (97.424%)
Epoch: [8][200/391]     Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0825 (0.0819)    Prec 95.312% (97.163%)
Epoch: [8][300/391]     Time 0.050 (0.056)      Data 0.001 (0.002)      Loss
0.0568 (0.0816)    Prec 97.656% (97.103%)
Validation starts
Test: [0/79]    Time 0.203 (0.203)      Loss 0.2084 (0.2084)    Prec 92.969%
(92.969%)
 * Prec 89.310%
best acc: 89.520000
Epoch: [9][0/391]       Time 0.250 (0.250)      Data 0.209 (0.209)      Loss
0.0326 (0.0326)    Prec 97.656% (97.656%)
Epoch: [9][100/391]     Time 0.061 (0.057)      Data 0.002 (0.004)      Loss
0.0417 (0.0840)    Prec 98.438% (97.061%)
Epoch: [9][200/391]     Time 0.056 (0.056)      Data 0.001 (0.003)      Loss
0.0890 (0.0860)    Prec 97.656% (97.058%)
Epoch: [9][300/391]     Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0662 (0.0826)    Prec 97.656% (97.197%)
Validation starts
Test: [0/79]    Time 0.187 (0.187)      Loss 0.1786 (0.1786)    Prec 93.750%
(93.750%)
 * Prec 90.170%
best acc: 90.170000
Epoch: [10][0/391]      Time 0.248 (0.248)      Data 0.198 (0.198)      Loss
0.1027 (0.1027)    Prec 97.656% (97.656%)
Epoch: [10][100/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0446 (0.0788)    Prec 97.656% (97.146%)
Epoch: [10][200/391]    Time 0.055 (0.056)      Data 0.001 (0.003)      Loss
0.0497 (0.0752)    Prec 98.438% (97.326%)
Epoch: [10][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.1634 (0.0767)    Prec 95.312% (97.290%)
Validation starts
Test: [0/79]    Time 0.203 (0.203)      Loss 0.1581 (0.1581)    Prec 97.656%
(97.656%)
 * Prec 89.060%
best acc: 90.170000
Epoch: [11][0/391]      Time 0.265 (0.265)      Data 0.215 (0.215)      Loss
0.1037 (0.1037)    Prec 96.094% (96.094%)
Epoch: [11][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0309 (0.0729)    Prec 99.219% (97.447%)
Epoch: [11][200/391]    Time 0.051 (0.056)      Data 0.002 (0.003)      Loss
0.0434 (0.0714)    Prec 97.656% (97.532%)
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Epoch: [11][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0838 (0.0719)    Prec 98.438% (97.482%)
Validation starts
Test: [0/79]    Time 0.229 (0.229)      Loss 0.1214 (0.1214)    Prec 92.969%
(92.969%)
 * Prec 90.390%
best acc: 90.390000
Epoch: [12][0/391]      Time 0.299 (0.299)      Data 0.252 (0.252)      Loss
0.0116 (0.0116)    Prec 100.000% (100.000%)
Epoch: [12][100/391]    Time 0.060 (0.058)      Data 0.002 (0.004)      Loss
0.0584 (0.0672)    Prec 98.438% (97.664%)
Epoch: [12][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0682 (0.0686)    Prec 96.875% (97.579%)
Epoch: [12][300/391]    Time 0.056 (0.056)      Data 0.001 (0.003)      Loss
0.0393 (0.0729)    Prec 97.656% (97.410%)
Validation starts
Test: [0/79]    Time 0.201 (0.201)      Loss 0.1899 (0.1899)    Prec 92.969%
(92.969%)
 * Prec 89.380%
best acc: 90.390000
Epoch: [13][0/391]      Time 0.275 (0.275)      Data 0.228 (0.228)      Loss
0.1190 (0.1190)    Prec 96.875% (96.875%)
Epoch: [13][100/391]    Time 0.049 (0.058)      Data 0.002 (0.004)      Loss
0.0776 (0.0708)    Prec 96.094% (97.517%)
Epoch: [13][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.1123 (0.0721)    Prec 96.094% (97.520%)
Epoch: [13][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0635 (0.0729)    Prec 96.875% (97.472%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.2562 (0.2562)    Prec 91.406%
(91.406%)
 * Prec 89.960%
best acc: 90.390000
Epoch: [14][0/391]      Time 0.260 (0.260)      Data 0.212 (0.212)      Loss
0.0662 (0.0662)    Prec 96.875% (96.875%)
Epoch: [14][100/391]    Time 0.061 (0.058)      Data 0.001 (0.004)      Loss
0.0568 (0.0579)    Prec 97.656% (98.012%)
Epoch: [14][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0671 (0.0640)    Prec 96.094% (97.839%)
Epoch: [14][300/391]    Time 0.057 (0.056)      Data 0.002 (0.002)      Loss
0.1507 (0.0699)    Prec 95.312% (97.615%)
Validation starts
Test: [0/79]    Time 0.208 (0.208)      Loss 0.1640 (0.1640)    Prec 94.531%
(94.531%)
 * Prec 90.900%
best acc: 90.900000
Epoch: [15][0/391]      Time 0.271 (0.271)      Data 0.222 (0.222)      Loss
0.0588 (0.0588)    Prec 97.656% (97.656%)
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Epoch: [15][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0564 (0.0585)    Prec 97.656% (97.896%)
Epoch: [15][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0479 (0.0636)    Prec 98.438% (97.812%)
Epoch: [15][300/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0884 (0.0658)    Prec 95.312% (97.711%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.3213 (0.3213)    Prec 92.969%
(92.969%)
 * Prec 89.160%
best acc: 90.900000
Epoch: [16][0/391]      Time 0.272 (0.272)      Data 0.226 (0.226)      Loss
0.0383 (0.0383)    Prec 98.438% (98.438%)
Epoch: [16][100/391]    Time 0.048 (0.058)      Data 0.002 (0.004)      Loss
0.0696 (0.0574)    Prec 97.656% (98.028%)
Epoch: [16][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
0.1428 (0.0624)    Prec 96.875% (97.854%)
Epoch: [16][300/391]    Time 0.058 (0.057)      Data 0.002 (0.003)      Loss
0.1587 (0.0641)    Prec 96.875% (97.755%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.1602 (0.1602)    Prec 96.094%
(96.094%)
 * Prec 89.880%
best acc: 90.900000
Epoch: [17][0/391]      Time 0.280 (0.280)      Data 0.235 (0.235)      Loss
0.0471 (0.0471)    Prec 97.656% (97.656%)
Epoch: [17][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0515 (0.0698)    Prec 98.438% (97.455%)
Epoch: [17][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0710 (0.0683)    Prec 96.875% (97.567%)
Epoch: [17][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.1042 (0.0700)    Prec 94.531% (97.555%)
Validation starts
Test: [0/79]    Time 0.223 (0.223)      Loss 0.1956 (0.1956)    Prec 92.969%
(92.969%)
 * Prec 90.320%
best acc: 90.900000
Epoch: [18][0/391]      Time 0.274 (0.274)      Data 0.225 (0.225)      Loss
0.0966 (0.0966)    Prec 96.094% (96.094%)
Epoch: [18][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0391 (0.0586)    Prec 98.438% (97.896%)
Epoch: [18][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0765 (0.0617)    Prec 96.875% (97.866%)
Epoch: [18][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0488 (0.0616)    Prec 97.656% (97.848%)
Validation starts
Test: [0/79]    Time 0.254 (0.254)      Loss 0.1656 (0.1656)    Prec 94.531%
(94.531%)
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 * Prec 89.600%
best acc: 90.900000
Epoch: [19][0/391]      Time 0.265 (0.265)      Data 0.219 (0.219)      Loss
0.0786 (0.0786)    Prec 97.656% (97.656%)
Epoch: [19][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0360 (0.0632)    Prec 99.219% (97.834%)
Epoch: [19][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0306 (0.0627)    Prec 99.219% (97.878%)
Epoch: [19][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.1103 (0.0655)    Prec 96.094% (97.778%)
Validation starts
Test: [0/79]    Time 0.226 (0.226)      Loss 0.1617 (0.1617)    Prec 93.750%
(93.750%)
 * Prec 89.930%
best acc: 90.900000
Epoch: [20][0/391]      Time 0.259 (0.259)      Data 0.214 (0.214)      Loss
0.0510 (0.0510)    Prec 98.438% (98.438%)
Epoch: [20][100/391]    Time 0.054 (0.058)      Data 0.002 (0.004)      Loss
0.0772 (0.0555)    Prec 96.875% (98.159%)
Epoch: [20][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0854 (0.0554)    Prec 96.875% (98.099%)
Epoch: [20][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0850 (0.0610)    Prec 96.094% (97.900%)
Validation starts
Test: [0/79]    Time 0.266 (0.266)      Loss 0.1380 (0.1380)    Prec 94.531%
(94.531%)
 * Prec 89.820%
best acc: 90.900000
Epoch: [21][0/391]      Time 0.311 (0.311)      Data 0.261 (0.261)      Loss
0.0791 (0.0791)    Prec 98.438% (98.438%)
Epoch: [21][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0919 (0.0615)    Prec 96.875% (97.912%)
Epoch: [21][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0294 (0.0602)    Prec 99.219% (97.901%)
Epoch: [21][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0976 (0.0629)    Prec 97.656% (97.794%)
Validation starts
Test: [0/79]    Time 0.256 (0.256)      Loss 0.1292 (0.1292)    Prec 95.312%
(95.312%)
 * Prec 89.720%
best acc: 90.900000
Epoch: [22][0/391]      Time 0.334 (0.334)      Data 0.286 (0.286)      Loss
0.0194 (0.0194)    Prec 99.219% (99.219%)
Epoch: [22][100/391]    Time 0.053 (0.058)      Data 0.001 (0.004)      Loss
0.0219 (0.0528)    Prec 100.000% (98.128%)
Epoch: [22][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0925 (0.0580)    Prec 96.875% (97.948%)
Epoch: [22][300/391]    Time 0.061 (0.056)      Data 0.002 (0.003)      Loss
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0.1098 (0.0613)    Prec 96.875% (97.854%)
Validation starts
Test: [0/79]    Time 0.205 (0.205)      Loss 0.1983 (0.1983)    Prec 92.188%
(92.188%)
 * Prec 89.860%
best acc: 90.900000
Epoch: [23][0/391]      Time 0.313 (0.313)      Data 0.264 (0.264)      Loss
0.0353 (0.0353)    Prec 98.438% (98.438%)
Epoch: [23][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0380 (0.0596)    Prec 98.438% (97.927%)
Epoch: [23][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0314 (0.0594)    Prec 99.219% (97.932%)
Epoch: [23][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0701 (0.0600)    Prec 96.094% (97.890%)
Validation starts
Test: [0/79]    Time 0.249 (0.249)      Loss 0.1682 (0.1682)    Prec 94.531%
(94.531%)
 * Prec 89.610%
best acc: 90.900000
Epoch: [24][0/391]      Time 0.227 (0.227)      Data 0.178 (0.178)      Loss
0.0464 (0.0464)    Prec 98.438% (98.438%)
Epoch: [24][100/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0564 (0.0602)    Prec 97.656% (97.865%)
Epoch: [24][200/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0951 (0.0599)    Prec 97.656% (97.905%)
Epoch: [24][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0307 (0.0597)    Prec 98.438% (97.942%)
Validation starts
Test: [0/79]    Time 0.223 (0.223)      Loss 0.5265 (0.5265)    Prec 87.500%
(87.500%)
 * Prec 83.840%
best acc: 90.900000
Epoch: [25][0/391]      Time 0.280 (0.280)      Data 0.233 (0.233)      Loss
0.1958 (0.1958)    Prec 92.969% (92.969%)
Epoch: [25][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0634 (0.1673)    Prec 98.438% (94.191%)
Epoch: [25][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.1577 (0.1512)    Prec 94.531% (94.691%)
Epoch: [25][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.1616 (0.1442)    Prec 95.312% (95.019%)
Validation starts
Test: [0/79]    Time 0.270 (0.270)      Loss 0.2602 (0.2602)    Prec 91.406%
(91.406%)
 * Prec 88.720%
best acc: 90.900000
Epoch: [26][0/391]      Time 0.263 (0.263)      Data 0.218 (0.218)      Loss
0.0754 (0.0754)    Prec 96.875% (96.875%)
Epoch: [26][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
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0.0421 (0.0846)    Prec 98.438% (96.968%)
Epoch: [26][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0955 (0.0900)    Prec 96.875% (96.848%)
Epoch: [26][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0977 (0.0915)    Prec 96.875% (96.878%)
Validation starts
Test: [0/79]    Time 0.252 (0.252)      Loss 0.1265 (0.1265)    Prec 96.875%
(96.875%)
 * Prec 89.740%
best acc: 90.900000
Epoch: [27][0/391]      Time 0.288 (0.288)      Data 0.243 (0.243)      Loss
0.0413 (0.0413)    Prec 99.219% (99.219%)
Epoch: [27][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0576 (0.0758)    Prec 98.438% (97.602%)
Epoch: [27][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0850 (0.0787)    Prec 96.094% (97.411%)
Epoch: [27][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0636 (0.0821)    Prec 97.656% (97.264%)
Validation starts
Test: [0/79]    Time 0.192 (0.192)      Loss 0.1502 (0.1502)    Prec 94.531%
(94.531%)
 * Prec 89.690%
best acc: 90.900000
Epoch: [28][0/391]      Time 0.269 (0.269)      Data 0.221 (0.221)      Loss
0.0846 (0.0846)    Prec 97.656% (97.656%)
Epoch: [28][100/391]    Time 0.054 (0.058)      Data 0.002 (0.004)      Loss
0.1064 (0.0725)    Prec 95.312% (97.463%)
Epoch: [28][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0914 (0.0751)    Prec 97.656% (97.271%)
Epoch: [28][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0898 (0.0751)    Prec 96.094% (97.303%)
Validation starts
Test: [0/79]    Time 0.235 (0.235)      Loss 0.2660 (0.2660)    Prec 93.750%
(93.750%)
 * Prec 89.650%
best acc: 90.900000
Epoch: [29][0/391]      Time 0.335 (0.335)      Data 0.287 (0.287)      Loss
0.0453 (0.0453)    Prec 99.219% (99.219%)
Epoch: [29][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0263 (0.0645)    Prec 100.000% (97.772%)
Epoch: [29][200/391]    Time 0.057 (0.057)      Data 0.002 (0.003)      Loss
0.0557 (0.0665)    Prec 96.875% (97.738%)
Epoch: [29][300/391]    Time 0.054 (0.056)      Data 0.001 (0.003)      Loss
0.0750 (0.0707)    Prec 97.656% (97.594%)
Validation starts
Test: [0/79]    Time 0.190 (0.190)      Loss 0.2180 (0.2180)    Prec 92.969%
(92.969%)
 * Prec 89.450%
```

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best acc: 90.900000
Epoch: [30][0/391]      Time 0.294 (0.294)      Data 0.249 (0.249)      Loss
0.0678 (0.0678)    Prec 98.438% (98.438%)
Epoch: [30][100/391]    Time 0.059 (0.058)      Data 0.002 (0.004)      Loss
0.0354 (0.0656)    Prec 99.219% (97.664%)
Epoch: [30][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.1061 (0.0650)    Prec 95.312% (97.718%)
Epoch: [30][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0739 (0.0664)    Prec 98.438% (97.682%)
Validation starts
Test: [0/79]    Time 0.215 (0.215)      Loss 0.1250 (0.1250)    Prec 95.312%
(95.312%)
 * Prec 90.200%
best acc: 90.900000
Epoch: [31][0/391]      Time 0.260 (0.260)      Data 0.212 (0.212)      Loss
0.0988 (0.0988)    Prec 96.094% (96.094%)
Epoch: [31][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0633 (0.0672)    Prec 97.656% (97.532%)
Epoch: [31][200/391]    Time 0.058 (0.057)      Data 0.002 (0.003)      Loss
0.0922 (0.0641)    Prec 96.094% (97.652%)
Epoch: [31][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0289 (0.0637)    Prec 99.219% (97.680%)
Validation starts
Test: [0/79]    Time 0.259 (0.259)      Loss 0.1547 (0.1547)    Prec 92.969%
(92.969%)
 * Prec 89.760%
best acc: 90.900000
Epoch: [32][0/391]      Time 0.279 (0.279)      Data 0.229 (0.229)      Loss
0.0798 (0.0798)    Prec 95.312% (95.312%)
Epoch: [32][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0810 (0.0626)    Prec 97.656% (97.757%)
Epoch: [32][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0379 (0.0578)    Prec 99.219% (97.979%)
Epoch: [32][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0981 (0.0588)    Prec 95.312% (97.882%)
Validation starts
Test: [0/79]    Time 0.246 (0.246)      Loss 0.3104 (0.3104)    Prec 92.188%
(92.188%)
 * Prec 89.260%
best acc: 90.900000
Epoch: [33][0/391]      Time 0.367 (0.367)      Data 0.318 (0.318)      Loss
0.0906 (0.0906)    Prec 96.094% (96.094%)
Epoch: [33][100/391]    Time 0.056 (0.059)      Data 0.001 (0.005)      Loss
0.0352 (0.0620)    Prec 98.438% (97.734%)
Epoch: [33][200/391]    Time 0.052 (0.057)      Data 0.002 (0.003)      Loss
0.0881 (0.0646)    Prec 98.438% (97.660%)
Epoch: [33][300/391]    Time 0.057 (0.057)      Data 0.002 (0.003)      Loss
0.0699 (0.0643)    Prec 98.438% (97.674%)
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Validation starts
Test: [0/79]    Time 0.240 (0.240)      Loss 0.2296 (0.2296)    Prec 93.750%
(93.750%)
 * Prec 90.530%
best acc: 90.900000
Epoch: [34][0/391]      Time 0.273 (0.273)      Data 0.226 (0.226)      Loss
0.0201 (0.0201)    Prec 99.219% (99.219%)
Epoch: [34][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0293 (0.0531)    Prec 98.438% (98.229%)
Epoch: [34][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0582 (0.0538)    Prec 96.875% (98.165%)
Epoch: [34][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0074 (0.0561)    Prec 100.000% (98.105%)
Validation starts
Test: [0/79]    Time 0.186 (0.186)      Loss 0.1202 (0.1202)    Prec 96.094%
(96.094%)
 * Prec 89.890%
best acc: 90.900000
Epoch: [35][0/391]      Time 0.293 (0.293)      Data 0.245 (0.245)      Loss
0.0724 (0.0724)    Prec 96.875% (96.875%)
Epoch: [35][100/391]    Time 0.054 (0.058)      Data 0.001 (0.004)      Loss
0.0528 (0.0598)    Prec 97.656% (97.896%)
Epoch: [35][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.1311 (0.0626)    Prec 94.531% (97.718%)
Epoch: [35][300/391]    Time 0.054 (0.056)      Data 0.002 (0.002)      Loss
0.0504 (0.0606)    Prec 96.875% (97.809%)
Validation starts
Test: [0/79]    Time 0.218 (0.218)      Loss 0.1547 (0.1547)    Prec 95.312%
(95.312%)
 * Prec 90.460%
best acc: 90.900000
Epoch: [36][0/391]      Time 0.272 (0.272)      Data 0.222 (0.222)      Loss
0.0729 (0.0729)    Prec 97.656% (97.656%)
Epoch: [36][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0525 (0.0559)    Prec 97.656% (98.020%)
Epoch: [36][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0289 (0.0576)    Prec 99.219% (98.002%)
Epoch: [36][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0886 (0.0581)    Prec 96.094% (97.996%)
Validation starts
Test: [0/79]    Time 0.268 (0.268)      Loss 0.1695 (0.1695)    Prec 95.312%
(95.312%)
 * Prec 89.880%
best acc: 90.900000
Epoch: [37][0/391]      Time 0.292 (0.292)      Data 0.244 (0.244)      Loss
0.0104 (0.0104)    Prec 100.000% (100.000%)
Epoch: [37][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0594 (0.0486)    Prec 97.656% (98.236%)
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Epoch: [37][200/391]    Time 0.057 (0.057)      Data 0.002 (0.003)      Loss
0.0527 (0.0527)    Prec 97.656% (98.200%)
Epoch: [37][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0518 (0.0545)    Prec 96.875% (98.090%)
Validation starts
Test: [0/79]    Time 0.259 (0.259)      Loss 0.1569 (0.1569)    Prec 94.531%
(94.531%)
 * Prec 89.910%
best acc: 90.900000
Epoch: [38][0/391]      Time 0.322 (0.322)      Data 0.275 (0.275)      Loss
0.0696 (0.0696)    Prec 96.875% (96.875%)
Epoch: [38][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0096 (0.0478)    Prec 100.000% (98.360%)
Epoch: [38][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0848 (0.0535)    Prec 96.875% (98.150%)
Epoch: [38][300/391]    Time 0.054 (0.056)      Data 0.002 (0.002)      Loss
0.0422 (0.0525)    Prec 98.438% (98.204%)
Validation starts
Test: [0/79]    Time 0.209 (0.209)      Loss 0.3275 (0.3275)    Prec 91.406%
(91.406%)
 * Prec 90.000%
best acc: 90.900000
Epoch: [39][0/391]      Time 0.265 (0.265)      Data 0.219 (0.219)      Loss
0.0105 (0.0105)    Prec 100.000% (100.000%)
Epoch: [39][100/391]    Time 0.058 (0.058)      Data 0.001 (0.004)      Loss
0.0382 (0.0556)    Prec 98.438% (98.105%)
Epoch: [39][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0462 (0.0542)    Prec 98.438% (98.115%)
Epoch: [39][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.1390 (0.0563)    Prec 96.094% (98.043%)
Validation starts
Test: [0/79]    Time 0.259 (0.259)      Loss 0.1753 (0.1753)    Prec 93.750%
(93.750%)
 * Prec 90.300%
best acc: 90.900000
Epoch: [40][0/391]      Time 0.246 (0.246)      Data 0.204 (0.204)      Loss
0.0537 (0.0537)    Prec 98.438% (98.438%)
Epoch: [40][100/391]    Time 0.056 (0.057)      Data 0.001 (0.004)      Loss
0.0426 (0.0530)    Prec 97.656% (98.167%)
Epoch: [40][200/391]    Time 0.056 (0.056)      Data 0.001 (0.003)      Loss
0.0149 (0.0507)    Prec 100.000% (98.239%)
Epoch: [40][300/391]    Time 0.052 (0.056)      Data 0.002 (0.002)      Loss
0.0308 (0.0507)    Prec 98.438% (98.240%)
Validation starts
Test: [0/79]    Time 0.216 (0.216)      Loss 0.1474 (0.1474)    Prec 92.969%
(92.969%)
 * Prec 89.750%
best acc: 90.900000
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Epoch: [41][0/391]      Time 0.303 (0.303)      Data 0.255 (0.255)      Loss
0.0218 (0.0218)    Prec 100.000% (100.000%)
Epoch: [41][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0271 (0.0630)    Prec 99.219% (97.850%)
Epoch: [41][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0686 (0.0566)    Prec 96.875% (98.092%)
Epoch: [41][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0200 (0.0575)    Prec 99.219% (98.064%)
Validation starts
Test: [0/79]    Time 0.208 (0.208)      Loss 0.2589 (0.2589)    Prec 94.531%
(94.531%)
 * Prec 90.520%
best acc: 90.900000
Epoch: [42][0/391]      Time 0.256 (0.256)      Data 0.207 (0.207)      Loss
0.0145 (0.0145)    Prec 100.000% (100.000%)
Epoch: [42][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0810 (0.0507)    Prec 96.875% (98.182%)
Epoch: [42][200/391]    Time 0.054 (0.056)      Data 0.001 (0.003)      Loss
0.0548 (0.0500)    Prec 97.656% (98.220%)
Epoch: [42][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0349 (0.0515)    Prec 99.219% (98.178%)
Validation starts
Test: [0/79]    Time 0.246 (0.246)      Loss 0.1639 (0.1639)    Prec 96.094%
(96.094%)
 * Prec 90.010%
best acc: 90.900000
Epoch: [43][0/391]      Time 0.280 (0.280)      Data 0.232 (0.232)      Loss
0.0488 (0.0488)    Prec 98.438% (98.438%)
Epoch: [43][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0367 (0.0500)    Prec 99.219% (98.314%)
Epoch: [43][200/391]    Time 0.053 (0.057)      Data 0.001 (0.003)      Loss
0.0389 (0.0481)    Prec 99.219% (98.399%)
Epoch: [43][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.1091 (0.0523)    Prec 94.531% (98.245%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.1080 (0.1080)    Prec 98.438%
(98.438%)
 * Prec 90.420%
best acc: 90.900000
Epoch: [44][0/391]      Time 0.246 (0.246)      Data 0.200 (0.200)      Loss
0.0610 (0.0610)    Prec 96.875% (96.875%)
Epoch: [44][100/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0208 (0.0431)    Prec 99.219% (98.422%)
Epoch: [44][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
0.0589 (0.0478)    Prec 98.438% (98.235%)
Epoch: [44][300/391]    Time 0.053 (0.056)      Data 0.001 (0.002)      Loss
0.0432 (0.0487)    Prec 98.438% (98.212%)
Validation starts
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Test: [0/79]    Time 0.195 (0.195)      Loss 0.1880 (0.1880)    Prec 93.750%
(93.750%)
 * Prec 90.120%
best acc: 90.900000
Epoch: [45][0/391]      Time 0.303 (0.303)      Data 0.254 (0.254)      Loss
0.0820 (0.0820)    Prec 96.875% (96.875%)
Epoch: [45][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0308 (0.0464)    Prec 99.219% (98.306%)
Epoch: [45][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
0.0264 (0.0490)    Prec 100.000% (98.224%)
Epoch: [45][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0452 (0.0492)    Prec 97.656% (98.264%)
Validation starts
Test: [0/79]    Time 0.253 (0.253)      Loss 0.2630 (0.2630)    Prec 90.625%
(90.625%)
 * Prec 88.870%
best acc: 90.900000
Epoch: [46][0/391]      Time 0.255 (0.255)      Data 0.206 (0.206)      Loss
0.0251 (0.0251)    Prec 99.219% (99.219%)
Epoch: [46][100/391]    Time 0.053 (0.058)      Data 0.001 (0.004)      Loss
0.0250 (0.0551)    Prec 99.219% (98.074%)
Epoch: [46][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0302 (0.0543)    Prec 98.438% (98.146%)
Epoch: [46][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.1705 (0.0546)    Prec 95.312% (98.097%)
Validation starts
Test: [0/79]    Time 0.209 (0.209)      Loss 0.1171 (0.1171)    Prec 95.312%
(95.312%)
 * Prec 90.420%
best acc: 90.900000
Epoch: [47][0/391]      Time 0.254 (0.254)      Data 0.208 (0.208)      Loss
0.0221 (0.0221)    Prec 99.219% (99.219%)
Epoch: [47][100/391]    Time 0.056 (0.057)      Data 0.001 (0.004)      Loss
0.0599 (0.0458)    Prec 97.656% (98.368%)
Epoch: [47][200/391]    Time 0.052 (0.056)      Data 0.001 (0.003)      Loss
0.0422 (0.0475)    Prec 98.438% (98.368%)
Epoch: [47][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0307 (0.0493)    Prec 99.219% (98.284%)
Validation starts
Test: [0/79]    Time 0.292 (0.292)      Loss 0.2657 (0.2657)    Prec 91.406%
(91.406%)
 * Prec 90.320%
best acc: 90.900000
Epoch: [48][0/391]      Time 0.284 (0.284)      Data 0.232 (0.232)      Loss
0.0167 (0.0167)    Prec 99.219% (99.219%)
Epoch: [48][100/391]    Time 0.057 (0.058)      Data 0.001 (0.004)      Loss
0.0047 (0.0435)    Prec 100.000% (98.453%)
Epoch: [48][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
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0.0116 (0.0446)    Prec 100.000% (98.457%)
Epoch: [48][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0195 (0.0455)    Prec 99.219% (98.430%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.1377 (0.1377)    Prec 94.531%
(94.531%)
 * Prec 90.440%
best acc: 90.900000
Epoch: [49][0/391]      Time 0.258 (0.258)      Data 0.214 (0.214)      Loss
0.0384 (0.0384)    Prec 98.438% (98.438%)
Epoch: [49][100/391]    Time 0.054 (0.058)      Data 0.002 (0.004)      Loss
0.0798 (0.0539)    Prec 97.656% (98.337%)
Epoch: [49][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0868 (0.0513)    Prec 96.094% (98.371%)
Epoch: [49][300/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0932 (0.0538)    Prec 97.656% (98.212%)
Validation starts
Test: [0/79]    Time 0.220 (0.220)      Loss 0.1381 (0.1381)    Prec 96.094%
(96.094%)
 * Prec 90.980%
best acc: 90.980000
Epoch: [50][0/391]      Time 0.250 (0.250)      Data 0.201 (0.201)      Loss
0.0485 (0.0485)    Prec 98.438% (98.438%)
Epoch: [50][100/391]    Time 0.055 (0.057)      Data 0.001 (0.004)      Loss
0.0208 (0.0403)    Prec 100.000% (98.492%)
Epoch: [50][200/391]    Time 0.056 (0.056)      Data 0.001 (0.003)      Loss
0.0271 (0.0436)    Prec 98.438% (98.403%)
Epoch: [50][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0103 (0.0452)    Prec 100.000% (98.375%)
Validation starts
Test: [0/79]    Time 0.198 (0.198)      Loss 0.2756 (0.2756)    Prec 93.750%
(93.750%)
 * Prec 89.290%
best acc: 90.980000
Epoch: [51][0/391]      Time 0.271 (0.271)      Data 0.223 (0.223)      Loss
0.0660 (0.0660)    Prec 97.656% (97.656%)
Epoch: [51][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0794 (0.0470)    Prec 97.656% (98.422%)
Epoch: [51][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0269 (0.0472)    Prec 98.438% (98.383%)
Epoch: [51][300/391]    Time 0.053 (0.056)      Data 0.001 (0.002)      Loss
0.1434 (0.0485)    Prec 94.531% (98.274%)
Validation starts
Test: [0/79]    Time 0.208 (0.208)      Loss 0.0918 (0.0918)    Prec 95.312%
(95.312%)
 * Prec 90.440%
best acc: 90.980000
Epoch: [52][0/391]      Time 0.265 (0.265)      Data 0.219 (0.219)      Loss
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0.0922 (0.0922)    Prec 97.656% (97.656%)
Epoch: [52][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0574 (0.0498)    Prec 96.875% (98.260%)
Epoch: [52][200/391]    Time 0.053 (0.057)      Data 0.001 (0.003)      Loss
0.0106 (0.0481)    Prec 100.000% (98.317%)
Epoch: [52][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0427 (0.0493)    Prec 97.656% (98.297%)
Validation starts
Test: [0/79]    Time 0.214 (0.214)      Loss 0.2024 (0.2024)    Prec 92.969%
(92.969%)
 * Prec 89.980%
best acc: 90.980000
Epoch: [53][0/391]      Time 0.254 (0.254)      Data 0.205 (0.205)      Loss
0.0194 (0.0194)    Prec 99.219% (99.219%)
Epoch: [53][100/391]    Time 0.052 (0.057)      Data 0.002 (0.004)      Loss
0.0422 (0.0510)    Prec 98.438% (98.345%)
Epoch: [53][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0313 (0.0494)    Prec 99.219% (98.301%)
Epoch: [53][300/391]    Time 0.054 (0.056)      Data 0.001 (0.002)      Loss
0.0377 (0.0488)    Prec 97.656% (98.308%)
Validation starts
Test: [0/79]    Time 0.226 (0.226)      Loss 0.2902 (0.2902)    Prec 93.750%
(93.750%)
 * Prec 90.260%
best acc: 90.980000
Epoch: [54][0/391]      Time 0.283 (0.283)      Data 0.235 (0.235)      Loss
0.0734 (0.0734)    Prec 97.656% (97.656%)
Epoch: [54][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0076 (0.0522)    Prec 100.000% (98.182%)
Epoch: [54][200/391]    Time 0.054 (0.057)      Data 0.001 (0.003)      Loss
0.1140 (0.0541)    Prec 96.875% (98.080%)
Epoch: [54][300/391]    Time 0.051 (0.056)      Data 0.001 (0.002)      Loss
0.0151 (0.0520)    Prec 100.000% (98.152%)
Validation starts
Test: [0/79]    Time 0.206 (0.206)      Loss 0.1655 (0.1655)    Prec 96.094%
(96.094%)
 * Prec 90.590%
best acc: 90.980000
Epoch: [55][0/391]      Time 0.255 (0.255)      Data 0.209 (0.209)      Loss
0.0241 (0.0241)    Prec 99.219% (99.219%)
Epoch: [55][100/391]    Time 0.056 (0.057)      Data 0.001 (0.004)      Loss
0.0199 (0.0474)    Prec 99.219% (98.291%)
Epoch: [55][200/391]    Time 0.056 (0.056)      Data 0.002 (0.003)      Loss
0.0294 (0.0497)    Prec 99.219% (98.181%)
Epoch: [55][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0266 (0.0513)    Prec 99.219% (98.134%)
Validation starts
Test: [0/79]    Time 0.253 (0.253)      Loss 0.1961 (0.1961)    Prec 94.531%
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(94.531%)
 * Prec 90.460%
best acc: 90.980000
Epoch: [56][0/391]      Time 0.343 (0.343)      Data 0.295 (0.295)      Loss
0.0246 (0.0246)    Prec 99.219% (99.219%)
Epoch: [56][100/391]    Time 0.054 (0.058)      Data 0.001 (0.005)      Loss
0.0957 (0.0472)    Prec 98.438% (98.275%)
Epoch: [56][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.1225 (0.0481)    Prec 96.094% (98.282%)
Epoch: [56][300/391]    Time 0.056 (0.056)      Data 0.001 (0.003)      Loss
0.0662 (0.0500)    Prec 96.875% (98.222%)
Validation starts
Test: [0/79]    Time 0.263 (0.263)      Loss 0.1629 (0.1629)    Prec 95.312%
(95.312%)
 * Prec 90.370%
best acc: 90.980000
Epoch: [57][0/391]      Time 0.316 (0.316)      Data 0.270 (0.270)      Loss
0.0389 (0.0389)    Prec 98.438% (98.438%)
Epoch: [57][100/391]    Time 0.058 (0.058)      Data 0.002 (0.004)      Loss
0.0320 (0.0512)    Prec 98.438% (98.236%)
Epoch: [57][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0226 (0.0505)    Prec 99.219% (98.251%)
Epoch: [57][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0334 (0.0482)    Prec 99.219% (98.318%)
Validation starts
Test: [0/79]    Time 0.207 (0.207)      Loss 0.1786 (0.1786)    Prec 92.969%
(92.969%)
 * Prec 89.810%
best acc: 90.980000
Epoch: [58][0/391]      Time 0.263 (0.263)      Data 0.215 (0.215)      Loss
0.0227 (0.0227)    Prec 99.219% (99.219%)
Epoch: [58][100/391]    Time 0.055 (0.057)      Data 0.001 (0.004)      Loss
0.0821 (0.0393)    Prec 97.656% (98.747%)
Epoch: [58][200/391]    Time 0.054 (0.056)      Data 0.001 (0.003)      Loss
0.0219 (0.0395)    Prec 99.219% (98.702%)
Epoch: [58][300/391]    Time 0.061 (0.056)      Data 0.001 (0.002)      Loss
0.0569 (0.0432)    Prec 99.219% (98.567%)
Validation starts
Test: [0/79]    Time 0.188 (0.188)      Loss 0.1730 (0.1730)    Prec 95.312%
(95.312%)
 * Prec 90.890%
best acc: 90.980000
Epoch: [59][0/391]      Time 0.307 (0.307)      Data 0.263 (0.263)      Loss
0.0126 (0.0126)    Prec 99.219% (99.219%)
Epoch: [59][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0302 (0.0402)    Prec 98.438% (98.554%)
Epoch: [59][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
0.0334 (0.0439)    Prec 99.219% (98.418%)
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Epoch: [59][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0651 (0.0452)    Prec 97.656% (98.386%)
Validation starts
Test: [0/79]    Time 0.234 (0.234)      Loss 0.1497 (0.1497)    Prec 94.531%
(94.531%)
 * Prec 88.900%
best acc: 90.980000
Epoch: [60][0/391]      Time 0.267 (0.267)      Data 0.226 (0.226)      Loss
0.1334 (0.1334)    Prec 94.531% (94.531%)
Epoch: [60][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0477 (0.0504)    Prec 96.875% (98.198%)
Epoch: [60][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0416 (0.0511)    Prec 98.438% (98.208%)
Epoch: [60][300/391]    Time 0.054 (0.056)      Data 0.002 (0.002)      Loss
0.0480 (0.0522)    Prec 98.438% (98.152%)
Validation starts
Test: [0/79]    Time 0.209 (0.209)      Loss 0.2513 (0.2513)    Prec 94.531%
(94.531%)
 * Prec 90.440%
best acc: 90.980000
Epoch: [61][0/391]      Time 0.332 (0.332)      Data 0.287 (0.287)      Loss
0.0313 (0.0313)    Prec 99.219% (99.219%)
Epoch: [61][100/391]    Time 0.057 (0.058)      Data 0.002 (0.004)      Loss
0.0361 (0.0509)    Prec 98.438% (98.252%)
Epoch: [61][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0255 (0.0491)    Prec 98.438% (98.278%)
Epoch: [61][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0467 (0.0487)    Prec 98.438% (98.313%)
Validation starts
Test: [0/79]    Time 0.259 (0.259)      Loss 0.3335 (0.3335)    Prec 90.625%
(90.625%)
 * Prec 89.770%
best acc: 90.980000
Epoch: [62][0/391]      Time 0.258 (0.258)      Data 0.208 (0.208)      Loss
0.0461 (0.0461)    Prec 96.875% (96.875%)
Epoch: [62][100/391]    Time 0.055 (0.057)      Data 0.001 (0.004)      Loss
0.0799 (0.0487)    Prec 97.656% (98.352%)
Epoch: [62][200/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0207 (0.0509)    Prec 100.000% (98.216%)
Epoch: [62][300/391]    Time 0.054 (0.056)      Data 0.001 (0.002)      Loss
0.0854 (0.0514)    Prec 96.875% (98.248%)
Validation starts
Test: [0/79]    Time 0.218 (0.218)      Loss 0.1552 (0.1552)    Prec 96.094%
(96.094%)
 * Prec 90.920%
best acc: 90.980000
Epoch: [63][0/391]      Time 0.267 (0.267)      Data 0.212 (0.212)      Loss
0.0440 (0.0440)    Prec 97.656% (97.656%)
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Epoch: [63][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0404 (0.0468)    Prec 99.219% (98.360%)
Epoch: [63][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0745 (0.0497)    Prec 96.094% (98.255%)
Epoch: [63][300/391]    Time 0.058 (0.056)      Data 0.001 (0.002)      Loss
0.0369 (0.0507)    Prec 97.656% (98.191%)
Validation starts
Test: [0/79]    Time 0.237 (0.237)      Loss 0.2263 (0.2263)    Prec 93.750%
(93.750%)
 * Prec 90.410%
best acc: 90.980000
Epoch: [64][0/391]      Time 0.315 (0.315)      Data 0.266 (0.266)      Loss
0.0463 (0.0463)    Prec 98.438% (98.438%)
Epoch: [64][100/391]    Time 0.053 (0.058)      Data 0.001 (0.004)      Loss
0.0741 (0.0423)    Prec 96.875% (98.507%)
Epoch: [64][200/391]    Time 0.054 (0.057)      Data 0.001 (0.003)      Loss
0.0305 (0.0522)    Prec 99.219% (98.099%)
Epoch: [64][300/391]    Time 0.061 (0.056)      Data 0.002 (0.003)      Loss
0.0343 (0.0518)    Prec 99.219% (98.162%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.2427 (0.2427)    Prec 95.312%
(95.312%)
 * Prec 90.480%
best acc: 90.980000
Epoch: [65][0/391]      Time 0.263 (0.263)      Data 0.218 (0.218)      Loss
0.1272 (0.1272)    Prec 96.094% (96.094%)
Epoch: [65][100/391]    Time 0.052 (0.058)      Data 0.002 (0.004)      Loss
0.0406 (0.0478)    Prec 97.656% (98.407%)
Epoch: [65][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0419 (0.0464)    Prec 97.656% (98.410%)
Epoch: [65][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0103 (0.0464)    Prec 100.000% (98.354%)
Validation starts
Test: [0/79]    Time 0.237 (0.237)      Loss 0.1839 (0.1839)    Prec 94.531%
(94.531%)
 * Prec 90.530%
best acc: 90.980000
Epoch: [66][0/391]      Time 0.264 (0.264)      Data 0.215 (0.215)      Loss
0.0694 (0.0694)    Prec 97.656% (97.656%)
Epoch: [66][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0607 (0.0457)    Prec 98.438% (98.329%)
Epoch: [66][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0345 (0.0466)    Prec 97.656% (98.375%)
Epoch: [66][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.1146 (0.0501)    Prec 96.094% (98.269%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.1423 (0.1423)    Prec 94.531%
(94.531%)
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 * Prec 90.150%
best acc: 90.980000
Epoch: [67][0/391]      Time 0.262 (0.262)      Data 0.212 (0.212)      Loss
0.0444 (0.0444)    Prec 98.438% (98.438%)
Epoch: [67][100/391]    Time 0.054 (0.058)      Data 0.001 (0.004)      Loss
0.0122 (0.0536)    Prec 99.219% (98.043%)
Epoch: [67][200/391]    Time 0.054 (0.057)      Data 0.001 (0.003)      Loss
0.0462 (0.0508)    Prec 98.438% (98.173%)
Epoch: [67][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0489 (0.0502)    Prec 98.438% (98.206%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.0922 (0.0922)    Prec 96.094%
(96.094%)
 * Prec 89.500%
best acc: 90.980000
Epoch: [68][0/391]      Time 0.257 (0.257)      Data 0.207 (0.207)      Loss
0.0285 (0.0285)    Prec 99.219% (99.219%)
Epoch: [68][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0294 (0.0459)    Prec 98.438% (98.291%)
Epoch: [68][200/391]    Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
0.0381 (0.0454)    Prec 99.219% (98.321%)
Epoch: [68][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0353 (0.0497)    Prec 99.219% (98.217%)
Validation starts
Test: [0/79]    Time 0.274 (0.274)      Loss 0.2243 (0.2243)    Prec 92.969%
(92.969%)
 * Prec 90.130%
best acc: 90.980000
Epoch: [69][0/391]      Time 0.324 (0.324)      Data 0.275 (0.275)      Loss
0.0118 (0.0118)    Prec 100.000% (100.000%)
Epoch: [69][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0243 (0.0441)    Prec 99.219% (98.523%)
Epoch: [69][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0562 (0.0422)    Prec 97.656% (98.616%)
Epoch: [69][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0385 (0.0432)    Prec 99.219% (98.559%)
Validation starts
Test: [0/79]    Time 0.217 (0.217)      Loss 0.1656 (0.1656)    Prec 93.750%
(93.750%)
 * Prec 90.550%
best acc: 90.980000
Epoch: [70][0/391]      Time 0.262 (0.262)      Data 0.212 (0.212)      Loss
0.0353 (0.0353)    Prec 98.438% (98.438%)
Epoch: [70][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0684 (0.0506)    Prec 96.094% (98.267%)
Epoch: [70][200/391]    Time 0.055 (0.056)      Data 0.001 (0.003)      Loss
0.0514 (0.0494)    Prec 97.656% (98.403%)
Epoch: [70][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
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0.0395 (0.0468)    Prec 97.656% (98.440%)
Validation starts
Test: [0/79]    Time 0.204 (0.204)      Loss 0.2819 (0.2819)    Prec 90.625%
(90.625%)
 * Prec 89.960%
best acc: 90.980000
Epoch: [71][0/391]      Time 0.276 (0.276)      Data 0.227 (0.227)      Loss
0.0504 (0.0504)    Prec 99.219% (99.219%)
Epoch: [71][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0641 (0.0432)    Prec 97.656% (98.453%)
Epoch: [71][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0273 (0.0446)    Prec 99.219% (98.480%)
Epoch: [71][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0245 (0.0474)    Prec 97.656% (98.344%)
Validation starts
Test: [0/79]    Time 0.213 (0.213)      Loss 0.1224 (0.1224)    Prec 95.312%
(95.312%)
 * Prec 90.240%
best acc: 90.980000
Epoch: [72][0/391]      Time 0.296 (0.296)      Data 0.250 (0.250)      Loss
0.0892 (0.0892)    Prec 94.531% (94.531%)
Epoch: [72][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0186 (0.0438)    Prec 100.000% (98.530%)
Epoch: [72][200/391]    Time 0.054 (0.057)      Data 0.002 (0.003)      Loss
0.0457 (0.0499)    Prec 97.656% (98.278%)
Epoch: [72][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0829 (0.0521)    Prec 95.312% (98.209%)
Validation starts
Test: [0/79]    Time 0.266 (0.266)      Loss 0.1485 (0.1485)    Prec 92.969%
(92.969%)
 * Prec 90.150%
best acc: 90.980000
Epoch: [73][0/391]      Time 0.275 (0.275)      Data 0.227 (0.227)      Loss
0.0174 (0.0174)    Prec 99.219% (99.219%)
Epoch: [73][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0975 (0.1462)    Prec 96.875% (95.034%)
Epoch: [73][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0907 (0.1191)    Prec 97.656% (95.872%)
Epoch: [73][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0939 (0.1102)    Prec 95.312% (96.177%)
Validation starts
Test: [0/79]    Time 0.213 (0.213)      Loss 0.1588 (0.1588)    Prec 93.750%
(93.750%)
 * Prec 90.020%
best acc: 90.980000
Epoch: [74][0/391]      Time 0.286 (0.286)      Data 0.241 (0.241)      Loss
0.0141 (0.0141)    Prec 100.000% (100.000%)
Epoch: [74][100/391]    Time 0.057 (0.058)      Data 0.001 (0.004)      Loss
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0.0442 (0.0668)    Prec 98.438% (97.571%)
Epoch: [74][200/391]    Time 0.057 (0.057)      Data 0.001 (0.003)      Loss
0.1158 (0.0674)    Prec 96.875% (97.602%)
Epoch: [74][300/391]    Time 0.058 (0.056)      Data 0.001 (0.002)      Loss
0.0349 (0.0689)    Prec 99.219% (97.534%)
Validation starts
Test: [0/79]    Time 0.234 (0.234)      Loss 0.2038 (0.2038)    Prec 93.750%
(93.750%)
 * Prec 90.190%
best acc: 90.980000
Epoch: [75][0/391]      Time 0.256 (0.256)      Data 0.207 (0.207)      Loss
0.0616 (0.0616)    Prec 98.438% (98.438%)
Epoch: [75][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0890 (0.0589)    Prec 96.875% (97.997%)
Epoch: [75][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0330 (0.0616)    Prec 99.219% (97.835%)
Epoch: [75][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0595 (0.0631)    Prec 98.438% (97.783%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.1986 (0.1986)    Prec 91.406%
(91.406%)
 * Prec 90.380%
best acc: 90.980000
Epoch: [76][0/391]      Time 0.253 (0.253)      Data 0.204 (0.204)      Loss
0.0473 (0.0473)    Prec 98.438% (98.438%)
Epoch: [76][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0713 (0.0668)    Prec 97.656% (97.641%)
Epoch: [76][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0835 (0.0647)    Prec 97.656% (97.765%)
Epoch: [76][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0596 (0.0644)    Prec 97.656% (97.812%)
Validation starts
Test: [0/79]    Time 0.264 (0.264)      Loss 0.2573 (0.2573)    Prec 93.750%
(93.750%)
 * Prec 90.280%
best acc: 90.980000
Epoch: [77][0/391]      Time 0.312 (0.312)      Data 0.263 (0.263)      Loss
0.0389 (0.0389)    Prec 98.438% (98.438%)
Epoch: [77][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0523 (0.0541)    Prec 97.656% (98.113%)
Epoch: [77][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0667 (0.0535)    Prec 96.875% (98.080%)
Epoch: [77][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0348 (0.0564)    Prec 98.438% (97.986%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.2227 (0.2227)    Prec 95.312%
(95.312%)
 * Prec 90.570%
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best acc: 90.980000
Epoch: [78][0/391]      Time 0.284 (0.284)      Data 0.234 (0.234)      Loss
0.0441 (0.0441)    Prec 98.438% (98.438%)
Epoch: [78][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0421 (0.0538)    Prec 98.438% (98.175%)
Epoch: [78][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0226 (0.0535)    Prec 99.219% (98.173%)
Epoch: [78][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0168 (0.0540)    Prec 99.219% (98.126%)
Validation starts
Test: [0/79]    Time 0.233 (0.233)      Loss 0.2586 (0.2586)    Prec 94.531%
(94.531%)
 * Prec 90.050%
best acc: 90.980000
Epoch: [79][0/391]      Time 0.314 (0.314)      Data 0.266 (0.266)      Loss
0.0401 (0.0401)    Prec 98.438% (98.438%)
Epoch: [79][100/391]    Time 0.054 (0.058)      Data 0.001 (0.004)      Loss
0.0627 (0.0562)    Prec 97.656% (98.012%)
Epoch: [79][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0403 (0.0542)    Prec 98.438% (98.088%)
Epoch: [79][300/391]    Time 0.058 (0.056)      Data 0.001 (0.002)      Loss
0.0374 (0.0558)    Prec 98.438% (98.048%)
Validation starts
Test: [0/79]    Time 0.271 (0.271)      Loss 0.1852 (0.1852)    Prec 94.531%
(94.531%)
 * Prec 90.610%
best acc: 90.980000
Epoch: [80][0/391]      Time 0.274 (0.274)      Data 0.227 (0.227)      Loss
0.0322 (0.0322)    Prec 98.438% (98.438%)
Epoch: [80][100/391]    Time 0.057 (0.058)      Data 0.002 (0.004)      Loss
0.0475 (0.0467)    Prec 99.219% (98.414%)
Epoch: [80][200/391]    Time 0.055 (0.057)      Data 0.001 (0.003)      Loss
0.0723 (0.0507)    Prec 96.875% (98.259%)
Epoch: [80][300/391]    Time 0.058 (0.056)      Data 0.002 (0.002)      Loss
0.0471 (0.0516)    Prec 97.656% (98.261%)
Validation starts
Test: [0/79]    Time 0.204 (0.204)      Loss 0.2065 (0.2065)    Prec 92.188%
(92.188%)
 * Prec 90.290%
best acc: 90.980000
Epoch: [81][0/391]      Time 0.313 (0.313)      Data 0.265 (0.265)      Loss
0.0147 (0.0147)    Prec 100.000% (100.000%)
Epoch: [81][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0400 (0.0494)    Prec 98.438% (98.314%)
Epoch: [81][200/391]    Time 0.052 (0.057)      Data 0.002 (0.003)      Loss
0.0327 (0.0513)    Prec 99.219% (98.212%)
Epoch: [81][300/391]    Time 0.058 (0.056)      Data 0.001 (0.002)      Loss
0.0281 (0.0526)    Prec 99.219% (98.160%)
```

```
Validation starts
Test: [0/79]    Time 0.232 (0.232)      Loss 0.2224 (0.2224)    Prec 90.625%
(90.625%)
 * Prec 88.740%
best acc: 90.980000
Epoch: [82][0/391]      Time 0.249 (0.249)      Data 0.201 (0.201)      Loss
0.0803 (0.0803)    Prec 98.438% (98.438%)
Epoch: [82][100/391]    Time 0.055 (0.057)      Data 0.002 (0.004)      Loss
0.0594 (0.0553)    Prec 98.438% (98.198%)
Epoch: [82][200/391]    Time 0.054 (0.056)      Data 0.001 (0.003)      Loss
0.0075 (0.0506)    Prec 100.000% (98.313%)
Epoch: [82][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0343 (0.0510)    Prec 99.219% (98.227%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.1366 (0.1366)    Prec 93.750%
(93.750%)
 * Prec 90.580%
best acc: 90.980000
Epoch: [83][0/391]      Time 0.250 (0.250)      Data 0.201 (0.201)      Loss
0.0383 (0.0383)    Prec 99.219% (99.219%)
Epoch: [83][100/391]    Time 0.054 (0.057)      Data 0.002 (0.004)      Loss
0.0586 (0.0502)    Prec 99.219% (98.159%)
Epoch: [83][200/391]    Time 0.055 (0.056)      Data 0.002 (0.003)      Loss
0.0636 (0.0485)    Prec 99.219% (98.251%)
Epoch: [83][300/391]    Time 0.058 (0.056)      Data 0.002 (0.002)      Loss
0.0379 (0.0496)    Prec 98.438% (98.225%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.1673 (0.1673)    Prec 94.531%
(94.531%)
 * Prec 90.000%
best acc: 90.980000
Epoch: [84][0/391]      Time 0.289 (0.289)      Data 0.246 (0.246)      Loss
0.0424 (0.0424)    Prec 99.219% (99.219%)
Epoch: [84][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.0461 (0.0575)    Prec 96.875% (97.997%)
Epoch: [84][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0763 (0.0556)    Prec 97.656% (98.060%)
Epoch: [84][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0161 (0.0559)    Prec 100.000% (98.038%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.2032 (0.2032)    Prec 93.750%
(93.750%)
 * Prec 89.770%
best acc: 90.980000
Epoch: [85][0/391]      Time 0.264 (0.264)      Data 0.218 (0.218)      Loss
0.0391 (0.0391)    Prec 99.219% (99.219%)
Epoch: [85][100/391]    Time 0.053 (0.058)      Data 0.001 (0.004)      Loss
0.0690 (0.0516)    Prec 96.094% (98.175%)
```

```
Epoch: [85][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0678 (0.0479)    Prec 97.656% (98.317%)
Epoch: [85][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0625 (0.0462)    Prec 97.656% (98.380%)
Validation starts
Test: [0/79]    Time 0.224 (0.224)      Loss 0.2413 (0.2413)    Prec 92.969%
(92.969%)
 * Prec 89.480%
best acc: 90.980000
Epoch: [86][0/391]      Time 0.253 (0.253)      Data 0.205 (0.205)      Loss
0.0607 (0.0607)    Prec 97.656% (97.656%)
Epoch: [86][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.0976 (0.0507)    Prec 94.531% (98.198%)
Epoch: [86][200/391]    Time 0.054 (0.057)      Data 0.001 (0.003)      Loss
0.0232 (0.0514)    Prec 100.000% (98.193%)
Epoch: [86][300/391]    Time 0.058 (0.056)      Data 0.002 (0.002)      Loss
0.0407 (0.0507)    Prec 98.438% (98.194%)
Validation starts
Test: [0/79]    Time 0.238 (0.238)      Loss 0.2613 (0.2613)    Prec 93.750%
(93.750%)
 * Prec 90.350%
best acc: 90.980000
Epoch: [87][0/391]      Time 0.311 (0.311)      Data 0.262 (0.262)      Loss
0.0342 (0.0342)    Prec 98.438% (98.438%)
Epoch: [87][100/391]    Time 0.058 (0.058)      Data 0.001 (0.004)      Loss
0.0624 (0.0502)    Prec 98.438% (98.267%)
Epoch: [87][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0327 (0.0510)    Prec 98.438% (98.142%)
Epoch: [87][300/391]    Time 0.052 (0.056)      Data 0.002 (0.002)      Loss
0.0196 (0.0527)    Prec 100.000% (98.087%)
Validation starts
Test: [0/79]    Time 0.245 (0.245)      Loss 0.3695 (0.3695)    Prec 89.062%
(89.062%)
 * Prec 88.060%
best acc: 90.980000
Epoch: [88][0/391]      Time 0.284 (0.284)      Data 0.239 (0.239)      Loss
0.0721 (0.0721)    Prec 97.656% (97.656%)
Epoch: [88][100/391]    Time 0.052 (0.058)      Data 0.002 (0.004)      Loss
0.0344 (0.0478)    Prec 99.219% (98.252%)
Epoch: [88][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0252 (0.0523)    Prec 99.219% (98.123%)
Epoch: [88][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0543 (0.0520)    Prec 96.094% (98.136%)
Validation starts
Test: [0/79]    Time 0.207 (0.207)      Loss 0.2664 (0.2664)    Prec 92.188%
(92.188%)
 * Prec 90.040%
best acc: 90.980000
```

```
Epoch: [89][0/391]      Time 0.296 (0.296)      Data 0.246 (0.246)      Loss
0.0419 (0.0419)    Prec 97.656% (97.656%)
Epoch: [89][100/391]    Time 0.054 (0.058)      Data 0.002 (0.004)      Loss
0.0491 (0.0484)    Prec 96.875% (98.321%)
Epoch: [89][200/391]    Time 0.053 (0.057)      Data 0.001 (0.003)      Loss
0.0317 (0.0491)    Prec 99.219% (98.235%)
Epoch: [89][300/391]    Time 0.053 (0.056)      Data 0.002 (0.002)      Loss
0.0329 (0.0494)    Prec 97.656% (98.271%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.2337 (0.2337)    Prec 92.188%
(92.188%)
 * Prec 89.500%
best acc: 90.980000
Epoch: [90][0/391]      Time 0.257 (0.257)      Data 0.215 (0.215)      Loss
0.0218 (0.0218)    Prec 99.219% (99.219%)
Epoch: [90][100/391]    Time 0.057 (0.058)      Data 0.002 (0.004)      Loss
0.0327 (0.0465)    Prec 98.438% (98.329%)
Epoch: [90][200/391]    Time 0.056 (0.057)      Data 0.001 (0.003)      Loss
0.0983 (0.0472)    Prec 96.094% (98.364%)
Epoch: [90][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0206 (0.0480)    Prec 99.219% (98.336%)
Validation starts
Test: [0/79]    Time 0.228 (0.228)      Loss 0.1857 (0.1857)    Prec 95.312%
(95.312%)
 * Prec 89.130%
best acc: 90.980000
Epoch: [91][0/391]      Time 0.266 (0.266)      Data 0.215 (0.215)      Loss
0.0615 (0.0615)    Prec 97.656% (97.656%)
Epoch: [91][100/391]    Time 0.055 (0.058)      Data 0.002 (0.004)      Loss
0.0341 (0.0472)    Prec 98.438% (98.291%)
Epoch: [91][200/391]    Time 0.060 (0.057)      Data 0.001 (0.003)      Loss
0.0805 (0.0472)    Prec 97.656% (98.282%)
Epoch: [91][300/391]    Time 0.056 (0.056)      Data 0.001 (0.002)      Loss
0.0440 (0.0483)    Prec 98.438% (98.297%)
Validation starts
Test: [0/79]    Time 0.246 (0.246)      Loss 0.3136 (0.3136)    Prec 93.750%
(93.750%)
 * Prec 90.240%
best acc: 90.980000
Epoch: [92][0/391]      Time 0.320 (0.320)      Data 0.270 (0.270)      Loss
0.0562 (0.0562)    Prec 97.656% (97.656%)
Epoch: [92][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0288 (0.0397)    Prec 99.219% (98.716%)
Epoch: [92][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0784 (0.0438)    Prec 98.438% (98.523%)
Epoch: [92][300/391]    Time 0.056 (0.056)      Data 0.002 (0.003)      Loss
0.1557 (0.0440)    Prec 96.094% (98.523%)
Validation starts
```

```
Test: [0/79]    Time 0.224 (0.224)      Loss 0.2628 (0.2628)    Prec 92.188%
(92.188%)
 * Prec 89.830%
best acc: 90.980000
Epoch: [93][0/391]      Time 0.320 (0.320)      Data 0.271 (0.271)      Loss
0.0731 (0.0731)    Prec 96.875% (96.875%)
Epoch: [93][100/391]    Time 0.054 (0.058)      Data 0.001 (0.004)      Loss
0.0682 (0.0453)    Prec 97.656% (98.391%)
Epoch: [93][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0384 (0.0439)    Prec 98.438% (98.449%)
Epoch: [93][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0329 (0.0429)    Prec 99.219% (98.492%)
Validation starts
Test: [0/79]    Time 0.238 (0.238)      Loss 0.2751 (0.2751)    Prec 92.969%
(92.969%)
 * Prec 89.590%
best acc: 90.980000
Epoch: [94][0/391]      Time 0.292 (0.292)      Data 0.240 (0.240)      Loss
0.0579 (0.0579)    Prec 97.656% (97.656%)
Epoch: [94][100/391]    Time 0.056 (0.058)      Data 0.001 (0.004)      Loss
0.0636 (0.0454)    Prec 97.656% (98.430%)
Epoch: [94][200/391]    Time 0.058 (0.057)      Data 0.001 (0.003)      Loss
0.0398 (0.0494)    Prec 99.219% (98.298%)
Epoch: [94][300/391]    Time 0.056 (0.056)      Data 0.002 (0.002)      Loss
0.0616 (0.0507)    Prec 98.438% (98.282%)
Validation starts
Test: [0/79]    Time 0.263 (0.263)      Loss 0.1762 (0.1762)    Prec 94.531%
(94.531%)
 * Prec 90.390%
best acc: 90.980000
Epoch: [95][0/391]      Time 0.264 (0.264)      Data 0.213 (0.213)      Loss
0.0141 (0.0141)    Prec 99.219% (99.219%)
Epoch: [95][100/391]    Time 0.055 (0.058)      Data 0.001 (0.004)      Loss
0.0712 (0.0400)    Prec 96.875% (98.646%)
Epoch: [95][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0288 (0.0459)    Prec 99.219% (98.422%)
Epoch: [95][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0445 (0.0453)    Prec 97.656% (98.443%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.2724 (0.2724)    Prec 93.750%
(93.750%)
 * Prec 89.840%
best acc: 90.980000
Epoch: [96][0/391]      Time 0.263 (0.263)      Data 0.215 (0.215)      Loss
0.0165 (0.0165)    Prec 100.000% (100.000%)
Epoch: [96][100/391]    Time 0.057 (0.058)      Data 0.001 (0.004)      Loss
0.0189 (0.0434)    Prec 99.219% (98.484%)
Epoch: [96][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
```

```
0.0148 (0.0436)    Prec 100.000% (98.445%)
Epoch: [96][300/391]    Time 0.055 (0.056)      Data 0.002 (0.002)      Loss
0.0681 (0.0479)    Prec 98.438% (98.297%)
Validation starts
Test: [0/79]    Time 0.241 (0.241)      Loss 0.1059 (0.1059)    Prec 96.094%
(96.094%)
 * Prec 88.920%
best acc: 90.980000
Epoch: [97][0/391]      Time 0.273 (0.273)      Data 0.227 (0.227)      Loss
0.0365 (0.0365)    Prec 97.656% (97.656%)
Epoch: [97][100/391]    Time 0.056 (0.057)      Data 0.002 (0.004)      Loss
0.1314 (0.0485)    Prec 96.094% (98.306%)
Epoch: [97][200/391]    Time 0.056 (0.057)      Data 0.002 (0.003)      Loss
0.0576 (0.0485)    Prec 96.875% (98.286%)
Epoch: [97][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.1235 (0.0488)    Prec 96.875% (98.292%)
Validation starts
Test: [0/79]    Time 0.206 (0.206)      Loss 0.1146 (0.1146)    Prec 96.094%
(96.094%)
 * Prec 90.970%
best acc: 90.980000
Epoch: [98][0/391]      Time 0.265 (0.265)      Data 0.216 (0.216)      Loss
0.0129 (0.0129)    Prec 99.219% (99.219%)
Epoch: [98][100/391]    Time 0.056 (0.058)      Data 0.002 (0.004)      Loss
0.1009 (0.0455)    Prec 96.094% (98.291%)
Epoch: [98][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0824 (0.0477)    Prec 97.656% (98.286%)
Epoch: [98][300/391]    Time 0.055 (0.056)      Data 0.001 (0.002)      Loss
0.0261 (0.0495)    Prec 99.219% (98.219%)
Validation starts
Test: [0/79]    Time 0.216 (0.216)      Loss 0.2437 (0.2437)    Prec 93.750%
(93.750%)
 * Prec 89.780%
best acc: 90.980000
Epoch: [99][0/391]      Time 0.254 (0.254)      Data 0.208 (0.208)      Loss
0.1022 (0.1022)    Prec 97.656% (97.656%)
Epoch: [99][100/391]    Time 0.053 (0.057)      Data 0.001 (0.004)      Loss
0.0418 (0.0456)    Prec 98.438% (98.445%)
Epoch: [99][200/391]    Time 0.055 (0.057)      Data 0.002 (0.003)      Loss
0.0348 (0.0441)    Prec 98.438% (98.461%)
Epoch: [99][300/391]    Time 0.057 (0.056)      Data 0.001 (0.002)      Loss
0.0634 (0.0464)    Prec 97.656% (98.370%)
Validation starts
Test: [0/79]    Time 0.224 (0.224)      Loss 0.2511 (0.2511)    Prec 94.531%
(94.531%)
 * Prec 89.670%
best acc: 90.980000
```

[9]:
```
copied_model.cuda()
copied_model.eval()

test_loss = 0
correct = 0

with torch.no_grad():
    for data, target in testloader:
        data, target = data.to(device), target.to(device)  # loading to GPU
        output = copied_model(data)  # use copied_model instead of model
        pred = output.argmax(dim=1, keepdim=True)
        correct += pred.eq(target.view_as(pred)).sum().item()

test_loss /= len(testloader.dataset)

print('\nTest set: Accuracy: {}/{} ({:.0f}%)\n'.format(
        correct, len(testloader.dataset),
        100. * correct / len(testloader.dataset)))
```

```
Test set: Accuracy: 8967/10000 (90%)
```

0.2 Structured Pruning

[12]:
```
import copy
import torch.nn.utils.prune as prune

# Assuming QuantConv2d is your custom class inheriting from torch.nn.Module
# Make sure to import it

# Create a deep copy of the model
copied_model = copy.deepcopy(model)

# Iterate over copied_model modules and prune QuantConv2d layers
for name, module in copied_model.named_modules():
    if isinstance(module, QuantConv2d):
        prune.ln_structured(module, name='weight', amount=0.80, dim=0, n=1)
```

[13]:
```
copied_model.cuda()
copied_model.eval()

test_loss = 0
correct = 0

with torch.no_grad():
    for data, target in testloader:
```

```
        data, target = data.to(device), target.to(device)  # loading to GPU
        output = copied_model(data)  # use copied_model instead of model
        pred = output.argmax(dim=1, keepdim=True)
        correct += pred.eq(target.view_as(pred)).sum().item()

test_loss /= len(testloader.dataset)

print('\nTest set: Accuracy: {}/{} ({:.0f}%)\n'.format(
        correct, len(testloader.dataset),
        100. * correct / len(testloader.dataset)))
```

```
Test set: Accuracy: 1000/10000 (10%)
```

[14]:
```
# Further fine-tuning, but you can stop here
lr = 4e-2  #hyperparameter 2
weight_decay = 1e-4 #hyperparameter 3
epochs = 100 #hyperparameter 4
best_prec = 0 #hyperparameter 5

#model = nn.DataParallel(model).cuda()
copied_model.cuda()
criterion = nn.CrossEntropyLoss().cuda()
optimizer = torch.optim.SGD(copied_model.parameters(), lr=lr, momentum=0.9,␣
 ↪weight_decay=weight_decay)
#cudnn.benchmark = True

if not os.path.exists('result'):
    os.makedirs('result')
fdir = 'result/'+str(model_name)+'_finetuning'
if not os.path.exists(fdir):
    os.makedirs(fdir)


for epoch in range(0, epochs):
    adjust_learning_rate(optimizer, epoch)

    train(trainloader, copied_model, criterion, optimizer, epoch)

    # evaluate on test set
    print("Validation starts")
    prec = validate(testloader, copied_model, criterion)

    # remember best precision and save checkpoint
    is_best = prec > best_prec
    best_prec = max(prec,best_prec)
```

```
    print('best acc: {:1f}'.format(best_prec))
    save_checkpoint({
        'epoch': epoch + 1,
        'state_dict': copied_model.state_dict(),
        'best_prec': best_prec,
        'optimizer': optimizer.state_dict(),
    }, is_best, fdir)
```

```
Epoch: [0][0/391]       Time 0.350 (0.350)      Data 0.280 (0.280)      Loss
3.0467 (3.0467)    Prec 9.375% (9.375%)
Epoch: [0][100/391]     Time 0.052 (0.056)      Data 0.002 (0.005)      Loss
1.7066 (2.0388)    Prec 33.594% (23.120%)
Epoch: [0][200/391]     Time 0.052 (0.054)      Data 0.001 (0.003)      Loss
1.4802 (1.8365)    Prec 45.312% (30.683%)
Epoch: [0][300/391]     Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
1.2373 (1.7032)    Prec 54.688% (35.976%)
Validation starts
Test: [0/79]    Time 0.280 (0.280)      Loss 1.3093 (1.3093)    Prec 48.438%
(48.438%)
 * Prec 51.450%
best acc: 51.450000
Epoch: [1][0/391]       Time 0.336 (0.336)      Data 0.288 (0.288)      Loss
1.1300 (1.1300)    Prec 64.844% (64.844%)
Epoch: [1][100/391]     Time 0.053 (0.056)      Data 0.002 (0.005)      Loss
1.2289 (1.1727)    Prec 55.469% (57.905%)
Epoch: [1][200/391]     Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.9933 (1.1302)    Prec 63.281% (59.581%)
Epoch: [1][300/391]     Time 0.052 (0.054)      Data 0.001 (0.003)      Loss
1.1278 (1.1002)    Prec 64.062% (60.914%)
Validation starts
Test: [0/79]    Time 0.237 (0.237)      Loss 1.0333 (1.0333)    Prec 62.500%
(62.500%)
 * Prec 61.290%
best acc: 61.290000
Epoch: [2][0/391]       Time 0.303 (0.303)      Data 0.257 (0.257)      Loss
0.9280 (0.9280)    Prec 62.500% (62.500%)
Epoch: [2][100/391]     Time 0.051 (0.055)      Data 0.002 (0.004)      Loss
0.8925 (0.9442)    Prec 68.750% (66.901%)
Epoch: [2][200/391]     Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.9204 (0.9458)    Prec 68.750% (66.950%)
Epoch: [2][300/391]     Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.9245 (0.9269)    Prec 74.219% (67.525%)
Validation starts
Test: [0/79]    Time 0.238 (0.238)      Loss 0.9556 (0.9556)    Prec 64.844%
(64.844%)
 * Prec 65.060%
best acc: 65.060000
```

```
Epoch: [3][0/391]       Time 0.261 (0.261)      Data 0.213 (0.213)      Loss
0.7098 (0.7098)    Prec 73.438% (73.438%)
Epoch: [3][100/391]     Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.8707 (0.8433)    Prec 70.312% (70.575%)
Epoch: [3][200/391]     Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.9427 (0.8588)    Prec 65.625% (70.103%)
Epoch: [3][300/391]     Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.9000 (0.8506)    Prec 63.281% (70.110%)
Validation starts
Test: [0/79]    Time 0.212 (0.212)      Loss 0.9269 (0.9269)    Prec 67.188%
(67.188%)
 * Prec 69.120%
best acc: 69.120000
Epoch: [4][0/391]       Time 0.324 (0.324)      Data 0.275 (0.275)      Loss
0.6939 (0.6939)    Prec 73.438% (73.438%)
Epoch: [4][100/391]     Time 0.051 (0.056)      Data 0.001 (0.004)      Loss
0.7820 (0.7804)    Prec 70.312% (72.710%)
Epoch: [4][200/391]     Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.8173 (0.7951)    Prec 71.875% (72.217%)
Epoch: [4][300/391]     Time 0.055 (0.054)      Data 0.002 (0.002)      Loss
0.9195 (0.7949)    Prec 71.094% (72.329%)
Validation starts
Test: [0/79]    Time 0.226 (0.226)      Loss 0.7594 (0.7594)    Prec 75.781%
(75.781%)
 * Prec 68.450%
best acc: 69.120000
Epoch: [5][0/391]       Time 0.310 (0.310)      Data 0.261 (0.261)      Loss
0.6931 (0.6931)    Prec 75.781% (75.781%)
Epoch: [5][100/391]     Time 0.050 (0.055)      Data 0.001 (0.004)      Loss
0.7639 (0.7782)    Prec 73.438% (72.726%)
Epoch: [5][200/391]     Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.6663 (0.7682)    Prec 78.125% (73.177%)
Epoch: [5][300/391]     Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.6518 (0.7607)    Prec 77.344% (73.528%)
Validation starts
Test: [0/79]    Time 0.216 (0.216)      Loss 0.8061 (0.8061)    Prec 72.656%
(72.656%)
 * Prec 72.340%
best acc: 72.340000
Epoch: [6][0/391]       Time 0.257 (0.257)      Data 0.205 (0.205)      Loss
0.6007 (0.6007)    Prec 81.250% (81.250%)
Epoch: [6][100/391]     Time 0.050 (0.055)      Data 0.002 (0.004)      Loss
0.6298 (0.7335)    Prec 76.562% (74.350%)
Epoch: [6][200/391]     Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.6825 (0.7332)    Prec 71.094% (74.444%)
Epoch: [6][300/391]     Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.7768 (0.7262)    Prec 74.219% (74.738%)
Validation starts
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Test: [0/79]    Time 0.269 (0.269)      Loss 0.7493 (0.7493)    Prec 74.219%
(74.219%)
 * Prec 70.670%
best acc: 72.340000
Epoch: [7][0/391]       Time 0.335 (0.335)      Data 0.287 (0.287)      Loss
0.6893 (0.6893)    Prec 77.344% (77.344%)
Epoch: [7][100/391]     Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.7837 (0.7131)    Prec 74.219% (74.938%)
Epoch: [7][200/391]     Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.6857 (0.7093)    Prec 78.125% (74.957%)
Epoch: [7][300/391]     Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.8098 (0.7100)    Prec 74.219% (75.106%)
Validation starts
Test: [0/79]    Time 0.234 (0.234)      Loss 0.7418 (0.7418)    Prec 74.219%
(74.219%)
 * Prec 75.330%
best acc: 75.330000
Epoch: [8][0/391]       Time 0.283 (0.283)      Data 0.239 (0.239)      Loss
0.6022 (0.6022)    Prec 78.125% (78.125%)
Epoch: [8][100/391]     Time 0.056 (0.055)      Data 0.001 (0.004)      Loss
0.7458 (0.6789)    Prec 73.438% (76.593%)
Epoch: [8][200/391]     Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.7993 (0.6824)    Prec 67.188% (76.248%)
Epoch: [8][300/391]     Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5439 (0.6876)    Prec 84.375% (76.098%)
Validation starts
Test: [0/79]    Time 0.229 (0.229)      Loss 0.8365 (0.8365)    Prec 74.219%
(74.219%)
 * Prec 68.400%
best acc: 75.330000
Epoch: [9][0/391]       Time 0.284 (0.284)      Data 0.236 (0.236)      Loss
0.7976 (0.7976)    Prec 74.219% (74.219%)
Epoch: [9][100/391]     Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.6648 (0.6788)    Prec 78.906% (76.346%)
Epoch: [9][200/391]     Time 0.055 (0.054)      Data 0.003 (0.003)      Loss
0.7216 (0.6762)    Prec 76.562% (76.364%)
Epoch: [9][300/391]     Time 0.055 (0.054)      Data 0.001 (0.003)      Loss
0.7439 (0.6704)    Prec 70.312% (76.596%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.5589 (0.5589)    Prec 81.250%
(81.250%)
 * Prec 76.210%
best acc: 76.210000
Epoch: [10][0/391]      Time 0.288 (0.288)      Data 0.243 (0.243)      Loss
0.6631 (0.6631)    Prec 77.344% (77.344%)
Epoch: [10][100/391]    Time 0.051 (0.056)      Data 0.002 (0.004)      Loss
0.7515 (0.6475)    Prec 72.656% (77.522%)
Epoch: [10][200/391]    Time 0.054 (0.056)      Data 0.002 (0.003)      Loss
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0.7122 (0.6584)    Prec 75.781% (77.099%)
Epoch: [10][300/391]    Time 0.064 (0.055)      Data 0.004 (0.003)      Loss
0.6474 (0.6571)    Prec 78.906% (77.206%)
Validation starts
Test: [0/79]    Time 0.219 (0.219)      Loss 0.6524 (0.6524)    Prec 75.000%
(75.000%)
 * Prec 73.630%
best acc: 76.210000
Epoch: [11][0/391]      Time 0.284 (0.284)      Data 0.236 (0.236)      Loss
0.6646 (0.6646)    Prec 79.688% (79.688%)
Epoch: [11][100/391]    Time 0.053 (0.057)      Data 0.002 (0.004)      Loss
0.6214 (0.6363)    Prec 77.344% (78.133%)
Epoch: [11][200/391]    Time 0.053 (0.055)      Data 0.001 (0.003)      Loss
0.6424 (0.6394)    Prec 80.469% (78.082%)
Epoch: [11][300/391]    Time 0.052 (0.055)      Data 0.002 (0.003)      Loss
0.6520 (0.6387)    Prec 75.000% (78.021%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.6409 (0.6409)    Prec 78.125%
(78.125%)
 * Prec 76.000%
best acc: 76.210000
Epoch: [12][0/391]      Time 0.304 (0.304)      Data 0.257 (0.257)      Loss
0.6947 (0.6947)    Prec 76.562% (76.562%)
Epoch: [12][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.5692 (0.6094)    Prec 78.125% (78.829%)
Epoch: [12][200/391]    Time 0.050 (0.054)      Data 0.001 (0.003)      Loss
0.5992 (0.6303)    Prec 79.688% (78.090%)
Epoch: [12][300/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.6057 (0.6295)    Prec 79.688% (78.216%)
Validation starts
Test: [0/79]    Time 0.274 (0.274)      Loss 0.6036 (0.6036)    Prec 81.250%
(81.250%)
 * Prec 75.490%
best acc: 76.210000
Epoch: [13][0/391]      Time 0.261 (0.261)      Data 0.220 (0.220)      Loss
0.5566 (0.5566)    Prec 80.469% (80.469%)
Epoch: [13][100/391]    Time 0.051 (0.055)      Data 0.001 (0.004)      Loss
0.7608 (0.6215)    Prec 72.656% (78.489%)
Epoch: [13][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.5733 (0.6205)    Prec 85.938% (78.529%)
Epoch: [13][300/391]    Time 0.055 (0.054)      Data 0.001 (0.002)      Loss
0.8632 (0.6207)    Prec 67.969% (78.631%)
Validation starts
Test: [0/79]    Time 0.255 (0.255)      Loss 0.6387 (0.6387)    Prec 78.125%
(78.125%)
 * Prec 76.530%
best acc: 76.530000
Epoch: [14][0/391]      Time 0.284 (0.284)      Data 0.234 (0.234)      Loss
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0.6106 (0.6106)    Prec 78.125% (78.125%)
Epoch: [14][100/391]    Time 0.057 (0.055)      Data 0.002 (0.004)      Loss
0.4548 (0.6144)    Prec 82.812% (78.906%)
Epoch: [14][200/391]    Time 0.054 (0.054)      Data 0.002 (0.003)      Loss
0.6820 (0.6124)    Prec 76.562% (79.000%)
Epoch: [14][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.8204 (0.6137)    Prec 73.438% (78.857%)
Validation starts
Test: [0/79]    Time 0.219 (0.219)      Loss 0.6207 (0.6207)    Prec 79.688%
(79.688%)
 * Prec 76.670%
best acc: 76.670000
Epoch: [15][0/391]      Time 0.278 (0.278)      Data 0.231 (0.231)      Loss
0.5538 (0.5538)    Prec 82.812% (82.812%)
Epoch: [15][100/391]    Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.5986 (0.6030)    Prec 75.781% (78.960%)
Epoch: [15][200/391]    Time 0.051 (0.054)      Data 0.001 (0.003)      Loss
0.5757 (0.5970)    Prec 79.688% (79.291%)
Epoch: [15][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.6022 (0.5993)    Prec 83.594% (79.233%)
Validation starts
Test: [0/79]    Time 0.236 (0.236)      Loss 0.6909 (0.6909)    Prec 77.344%
(77.344%)
 * Prec 77.390%
best acc: 77.390000
Epoch: [16][0/391]      Time 0.331 (0.331)      Data 0.279 (0.279)      Loss
0.5256 (0.5256)    Prec 84.375% (84.375%)
Epoch: [16][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.6472 (0.5943)    Prec 75.781% (79.865%)
Epoch: [16][200/391]    Time 0.052 (0.055)      Data 0.002 (0.003)      Loss
0.4392 (0.5925)    Prec 87.500% (79.835%)
Epoch: [16][300/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.7188 (0.5947)    Prec 74.219% (79.680%)
Validation starts
Test: [0/79]    Time 0.223 (0.223)      Loss 0.6341 (0.6341)    Prec 76.562%
(76.562%)
 * Prec 75.000%
best acc: 77.390000
Epoch: [17][0/391]      Time 0.297 (0.297)      Data 0.248 (0.248)      Loss
0.5791 (0.5791)    Prec 78.906% (78.906%)
Epoch: [17][100/391]    Time 0.054 (0.055)      Data 0.002 (0.004)      Loss
0.5354 (0.5922)    Prec 85.156% (79.363%)
Epoch: [17][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.3931 (0.5886)    Prec 87.500% (79.481%)
Epoch: [17][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5617 (0.5863)    Prec 80.469% (79.675%)
Validation starts
Test: [0/79]    Time 0.256 (0.256)      Loss 0.5974 (0.5974)    Prec 78.906%
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(78.906%)
 * Prec 75.660%
best acc: 77.390000
Epoch: [18][0/391]      Time 0.322 (0.322)      Data 0.273 (0.273)      Loss
0.6891 (0.6891)    Prec 74.219% (74.219%)
Epoch: [18][100/391]    Time 0.049 (0.055)      Data 0.002 (0.004)      Loss
0.6015 (0.5804)    Prec 82.812% (79.819%)
Epoch: [18][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4835 (0.5828)    Prec 85.938% (79.983%)
Epoch: [18][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5476 (0.5840)    Prec 82.031% (79.934%)
Validation starts
Test: [0/79]    Time 0.262 (0.262)      Loss 0.5302 (0.5302)    Prec 84.375%
(84.375%)
 * Prec 78.510%
best acc: 78.510000
Epoch: [19][0/391]      Time 0.313 (0.313)      Data 0.262 (0.262)      Loss
0.5508 (0.5508)    Prec 82.812% (82.812%)
Epoch: [19][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.5934 (0.5725)    Prec 77.344% (80.322%)
Epoch: [19][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.5415 (0.5757)    Prec 80.469% (80.177%)
Epoch: [19][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5915 (0.5791)    Prec 80.469% (80.046%)
Validation starts
Test: [0/79]    Time 0.243 (0.243)      Loss 0.5596 (0.5596)    Prec 80.469%
(80.469%)
 * Prec 77.880%
best acc: 78.510000
Epoch: [20][0/391]      Time 0.301 (0.301)      Data 0.252 (0.252)      Loss
0.5839 (0.5839)    Prec 77.344% (77.344%)
Epoch: [20][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.6208 (0.5641)    Prec 78.906% (80.709%)
Epoch: [20][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4327 (0.5639)    Prec 85.156% (80.752%)
Epoch: [20][300/391]    Time 0.052 (0.054)      Data 0.001 (0.002)      Loss
0.5029 (0.5694)    Prec 83.594% (80.573%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.5766 (0.5766)    Prec 79.688%
(79.688%)
 * Prec 78.120%
best acc: 78.510000
Epoch: [21][0/391]      Time 0.286 (0.286)      Data 0.237 (0.237)      Loss
0.5464 (0.5464)    Prec 80.469% (80.469%)
Epoch: [21][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.4693 (0.5572)    Prec 85.156% (80.856%)
Epoch: [21][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.4208 (0.5666)    Prec 89.062% (80.504%)
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Epoch: [21][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.6519 (0.5652)    Prec 75.000% (80.484%)
Validation starts
Test: [0/79]    Time 0.211 (0.211)      Loss 0.4880 (0.4880)    Prec 83.594%
(83.594%)
 * Prec 79.210%
best acc: 79.210000
Epoch: [22][0/391]      Time 0.292 (0.292)      Data 0.242 (0.242)      Loss
0.8409 (0.8409)    Prec 69.531% (69.531%)
Epoch: [22][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
0.4955 (0.5613)    Prec 82.031% (80.786%)
Epoch: [22][200/391]    Time 0.056 (0.054)      Data 0.001 (0.003)      Loss
0.5052 (0.5624)    Prec 76.562% (80.760%)
Epoch: [22][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5712 (0.5635)    Prec 79.688% (80.721%)
Validation starts
Test: [0/79]    Time 0.219 (0.219)      Loss 0.5925 (0.5925)    Prec 79.688%
(79.688%)
 * Prec 78.150%
best acc: 79.210000
Epoch: [23][0/391]      Time 0.339 (0.339)      Data 0.291 (0.291)      Loss
0.5770 (0.5770)    Prec 78.906% (78.906%)
Epoch: [23][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.5058 (0.5634)    Prec 82.812% (80.507%)
Epoch: [23][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4500 (0.5620)    Prec 85.156% (80.640%)
Epoch: [23][300/391]    Time 0.059 (0.054)      Data 0.002 (0.003)      Loss
0.5115 (0.5560)    Prec 83.594% (80.861%)
Validation starts
Test: [0/79]    Time 0.262 (0.262)      Loss 0.6762 (0.6762)    Prec 74.219%
(74.219%)
 * Prec 76.450%
best acc: 79.210000
Epoch: [24][0/391]      Time 0.298 (0.298)      Data 0.249 (0.249)      Loss
0.6248 (0.6248)    Prec 83.594% (83.594%)
Epoch: [24][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.6286 (0.5535)    Prec 81.250% (81.374%)
Epoch: [24][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4640 (0.5579)    Prec 83.594% (80.892%)
Epoch: [24][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.6208 (0.5555)    Prec 79.688% (80.866%)
Validation starts
Test: [0/79]    Time 0.213 (0.213)      Loss 0.5064 (0.5064)    Prec 85.156%
(85.156%)
 * Prec 79.630%
best acc: 79.630000
Epoch: [25][0/391]      Time 0.291 (0.291)      Data 0.250 (0.250)      Loss
0.5956 (0.5956)    Prec 79.688% (79.688%)
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Epoch: [25][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.6579 (0.5445)    Prec 77.344% (81.010%)
Epoch: [25][200/391]    Time 0.059 (0.054)      Data 0.002 (0.003)      Loss
0.5709 (0.5433)    Prec 78.125% (81.083%)
Epoch: [25][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5158 (0.5480)    Prec 85.156% (81.022%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.4332 (0.4332)    Prec 86.719%
(86.719%)
 * Prec 80.420%
best acc: 80.420000
Epoch: [26][0/391]      Time 0.305 (0.305)      Data 0.256 (0.256)      Loss
0.4881 (0.4881)    Prec 85.156% (85.156%)
Epoch: [26][100/391]    Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.4962 (0.5471)    Prec 81.250% (81.250%)
Epoch: [26][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.5406 (0.5464)    Prec 78.906% (81.374%)
Epoch: [26][300/391]    Time 0.055 (0.054)      Data 0.002 (0.003)      Loss
0.6069 (0.5470)    Prec 78.125% (81.247%)
Validation starts
Test: [0/79]    Time 0.224 (0.224)      Loss 0.5654 (0.5654)    Prec 78.125%
(78.125%)
 * Prec 76.410%
best acc: 80.420000
Epoch: [27][0/391]      Time 0.236 (0.236)      Data 0.190 (0.190)      Loss
0.4356 (0.4356)    Prec 82.812% (82.812%)
Epoch: [27][100/391]    Time 0.052 (0.055)      Data 0.001 (0.003)      Loss
0.4986 (0.5344)    Prec 85.938% (81.637%)
Epoch: [27][200/391]    Time 0.055 (0.054)      Data 0.002 (0.003)      Loss
0.5710 (0.5396)    Prec 81.250% (81.635%)
Epoch: [27][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5130 (0.5358)    Prec 85.156% (81.598%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.6430 (0.6430)    Prec 81.250%
(81.250%)
 * Prec 77.580%
best acc: 80.420000
Epoch: [28][0/391]      Time 0.311 (0.311)      Data 0.263 (0.263)      Loss
0.5876 (0.5876)    Prec 78.906% (78.906%)
Epoch: [28][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.6481 (0.5567)    Prec 72.656% (80.987%)
Epoch: [28][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.5053 (0.5514)    Prec 81.250% (80.997%)
Epoch: [28][300/391]    Time 0.054 (0.054)      Data 0.002 (0.002)      Loss
0.5334 (0.5479)    Prec 79.688% (81.094%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.5459 (0.5459)    Prec 84.375%
(84.375%)
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 * Prec 79.350%
best acc: 80.420000
Epoch: [29][0/391]      Time 0.275 (0.275)      Data 0.228 (0.228)      Loss
0.5168 (0.5168)    Prec 79.688% (79.688%)
Epoch: [29][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.4606 (0.5299)    Prec 83.594% (81.822%)
Epoch: [29][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.6447 (0.5450)    Prec 76.562% (81.351%)
Epoch: [29][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5850 (0.5459)    Prec 79.688% (81.276%)
Validation starts
Test: [0/79]    Time 0.248 (0.248)      Loss 0.5818 (0.5818)    Prec 80.469%
(80.469%)
 * Prec 77.980%
best acc: 80.420000
Epoch: [30][0/391]      Time 0.279 (0.279)      Data 0.231 (0.231)      Loss
0.6382 (0.6382)    Prec 78.906% (78.906%)
Epoch: [30][100/391]    Time 0.051 (0.055)      Data 0.002 (0.004)      Loss
0.5456 (0.5375)    Prec 81.250% (81.436%)
Epoch: [30][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.4823 (0.5370)    Prec 85.156% (81.542%)
Epoch: [30][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5950 (0.5392)    Prec 78.906% (81.543%)
Validation starts
Test: [0/79]    Time 0.240 (0.240)      Loss 0.5202 (0.5202)    Prec 82.031%
(82.031%)
 * Prec 79.910%
best acc: 80.420000
Epoch: [31][0/391]      Time 0.289 (0.289)      Data 0.242 (0.242)      Loss
0.3906 (0.3906)    Prec 89.062% (89.062%)
Epoch: [31][100/391]    Time 0.056 (0.055)      Data 0.002 (0.004)      Loss
0.5093 (0.5319)    Prec 81.250% (81.498%)
Epoch: [31][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4603 (0.5288)    Prec 85.938% (81.744%)
Epoch: [31][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.5266 (0.5289)    Prec 80.469% (81.811%)
Validation starts
Test: [0/79]    Time 0.226 (0.226)      Loss 0.6509 (0.6509)    Prec 79.688%
(79.688%)
 * Prec 78.270%
best acc: 80.420000
Epoch: [32][0/391]      Time 0.340 (0.340)      Data 0.293 (0.293)      Loss
0.6087 (0.6087)    Prec 78.906% (78.906%)
Epoch: [32][100/391]    Time 0.053 (0.056)      Data 0.001 (0.005)      Loss
0.4733 (0.5219)    Prec 85.156% (82.132%)
Epoch: [32][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.4523 (0.5211)    Prec 87.500% (82.206%)
Epoch: [32][300/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
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0.4289 (0.5244)    Prec 84.375% (82.099%)
Validation starts
Test: [0/79]    Time 0.223 (0.223)      Loss 0.4565 (0.4565)    Prec 85.938%
(85.938%)
 * Prec 79.960%
best acc: 80.420000
Epoch: [33][0/391]      Time 0.284 (0.284)      Data 0.235 (0.235)      Loss
0.6371 (0.6371)    Prec 78.125% (78.125%)
Epoch: [33][100/391]    Time 0.056 (0.055)      Data 0.002 (0.004)      Loss
0.5848 (0.5237)    Prec 82.812% (81.381%)
Epoch: [33][200/391]    Time 0.054 (0.054)      Data 0.003 (0.003)      Loss
0.5316 (0.5312)    Prec 83.594% (81.472%)
Epoch: [33][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5449 (0.5297)    Prec 82.031% (81.546%)
Validation starts
Test: [0/79]    Time 0.235 (0.235)      Loss 0.5028 (0.5028)    Prec 82.812%
(82.812%)
 * Prec 80.690%
best acc: 80.690000
Epoch: [34][0/391]      Time 0.323 (0.323)      Data 0.272 (0.272)      Loss
0.5314 (0.5314)    Prec 83.594% (83.594%)
Epoch: [34][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.6813 (0.5272)    Prec 82.031% (82.031%)
Epoch: [34][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.4174 (0.5231)    Prec 87.500% (82.128%)
Epoch: [34][300/391]    Time 0.055 (0.054)      Data 0.001 (0.003)      Loss
0.5612 (0.5223)    Prec 81.250% (82.200%)
Validation starts
Test: [0/79]    Time 0.260 (0.260)      Loss 0.5666 (0.5666)    Prec 80.469%
(80.469%)
 * Prec 79.490%
best acc: 80.690000
Epoch: [35][0/391]      Time 0.274 (0.274)      Data 0.233 (0.233)      Loss
0.4997 (0.4997)    Prec 84.375% (84.375%)
Epoch: [35][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.4506 (0.5158)    Prec 84.375% (82.132%)
Epoch: [35][200/391]    Time 0.058 (0.054)      Data 0.004 (0.003)      Loss
0.6439 (0.5154)    Prec 78.906% (82.179%)
Epoch: [35][300/391]    Time 0.051 (0.054)      Data 0.001 (0.002)      Loss
0.5682 (0.5224)    Prec 82.031% (81.977%)
Validation starts
Test: [0/79]    Time 0.256 (0.256)      Loss 0.5517 (0.5517)    Prec 77.344%
(77.344%)
 * Prec 77.900%
best acc: 80.690000
Epoch: [36][0/391]      Time 0.262 (0.262)      Data 0.213 (0.213)      Loss
0.4930 (0.4930)    Prec 82.812% (82.812%)
Epoch: [36][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
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0.5893 (0.5161)    Prec 80.469% (82.062%)
Epoch: [36][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.3976 (0.5097)    Prec 89.062% (82.284%)
Epoch: [36][300/391]    Time 0.055 (0.054)      Data 0.002 (0.002)      Loss
0.6474 (0.5160)    Prec 78.125% (82.112%)
Validation starts
Test: [0/79]    Time 0.236 (0.236)      Loss 0.5639 (0.5639)    Prec 81.250%
(81.250%)
 * Prec 80.900%
best acc: 80.900000
Epoch: [37][0/391]      Time 0.268 (0.268)      Data 0.222 (0.222)      Loss
0.5352 (0.5352)    Prec 79.688% (79.688%)
Epoch: [37][100/391]    Time 0.051 (0.055)      Data 0.001 (0.004)      Loss
0.4357 (0.5018)    Prec 85.156% (82.805%)
Epoch: [37][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4500 (0.5042)    Prec 84.375% (82.610%)
Epoch: [37][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5782 (0.5122)    Prec 82.812% (82.493%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.5369 (0.5369)    Prec 82.812%
(82.812%)
 * Prec 78.740%
best acc: 80.900000
Epoch: [38][0/391]      Time 0.274 (0.274)      Data 0.227 (0.227)      Loss
0.5809 (0.5809)    Prec 78.906% (78.906%)
Epoch: [38][100/391]    Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.3565 (0.5066)    Prec 85.938% (82.464%)
Epoch: [38][200/391]    Time 0.051 (0.054)      Data 0.001 (0.003)      Loss
0.4716 (0.5070)    Prec 81.250% (82.463%)
Epoch: [38][300/391]    Time 0.055 (0.054)      Data 0.002 (0.002)      Loss
0.3665 (0.5115)    Prec 89.844% (82.470%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.4755 (0.4755)    Prec 84.375%
(84.375%)
 * Prec 79.970%
best acc: 80.900000
Epoch: [39][0/391]      Time 0.265 (0.265)      Data 0.215 (0.215)      Loss
0.4432 (0.4432)    Prec 85.938% (85.938%)
Epoch: [39][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5889 (0.4897)    Prec 78.906% (82.967%)
Epoch: [39][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4190 (0.5034)    Prec 83.594% (82.572%)
Epoch: [39][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.6044 (0.5027)    Prec 75.000% (82.511%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.5184 (0.5184)    Prec 84.375%
(84.375%)
 * Prec 81.050%
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best acc: 81.050000
Epoch: [40][0/391]      Time 0.294 (0.294)      Data 0.248 (0.248)      Loss
0.5296 (0.5296)    Prec 81.250% (81.250%)
Epoch: [40][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.4600 (0.5057)    Prec 82.812% (82.859%)
Epoch: [40][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.4600 (0.5029)    Prec 82.812% (82.847%)
Epoch: [40][300/391]    Time 0.054 (0.054)      Data 0.004 (0.002)      Loss
0.6821 (0.5002)    Prec 78.906% (82.805%)
Validation starts
Test: [0/79]    Time 0.242 (0.242)      Loss 0.5188 (0.5188)    Prec 80.469%
(80.469%)
 * Prec 81.170%
best acc: 81.170000
Epoch: [41][0/391]      Time 0.284 (0.284)      Data 0.237 (0.237)      Loss
0.5741 (0.5741)    Prec 80.469% (80.469%)
Epoch: [41][100/391]    Time 0.057 (0.055)      Data 0.002 (0.004)      Loss
0.5721 (0.5035)    Prec 82.031% (82.495%)
Epoch: [41][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5491 (0.5103)    Prec 81.250% (82.334%)
Epoch: [41][300/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.5599 (0.5068)    Prec 82.031% (82.556%)
Validation starts
Test: [0/79]    Time 0.219 (0.219)      Loss 0.4875 (0.4875)    Prec 82.812%
(82.812%)
 * Prec 80.150%
best acc: 81.170000
Epoch: [42][0/391]      Time 0.283 (0.283)      Data 0.234 (0.234)      Loss
0.5694 (0.5694)    Prec 79.688% (79.688%)
Epoch: [42][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5477 (0.5089)    Prec 79.688% (82.650%)
Epoch: [42][200/391]    Time 0.050 (0.054)      Data 0.001 (0.003)      Loss
0.5648 (0.5021)    Prec 81.250% (82.727%)
Epoch: [42][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4721 (0.5061)    Prec 80.469% (82.501%)
Validation starts
Test: [0/79]    Time 0.228 (0.228)      Loss 0.5334 (0.5334)    Prec 83.594%
(83.594%)
 * Prec 79.940%
best acc: 81.170000
Epoch: [43][0/391]      Time 0.300 (0.300)      Data 0.249 (0.249)      Loss
0.4799 (0.4799)    Prec 84.375% (84.375%)
Epoch: [43][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.4643 (0.4989)    Prec 84.375% (82.789%)
Epoch: [43][200/391]    Time 0.052 (0.054)      Data 0.001 (0.003)      Loss
0.5009 (0.4986)    Prec 82.812% (82.719%)
Epoch: [43][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5430 (0.5020)    Prec 79.688% (82.683%)
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Validation starts
Test: [0/79]    Time 0.276 (0.276)      Loss 0.4781 (0.4781)    Prec 80.469%
(80.469%)
 * Prec 80.240%
best acc: 81.170000
Epoch: [44][0/391]      Time 0.282 (0.282)      Data 0.232 (0.232)      Loss
0.4885 (0.4885)    Prec 79.688% (79.688%)
Epoch: [44][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5073 (0.5045)    Prec 83.594% (82.774%)
Epoch: [44][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4118 (0.5032)    Prec 86.719% (82.603%)
Epoch: [44][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5583 (0.5041)    Prec 80.469% (82.581%)
Validation starts
Test: [0/79]    Time 0.232 (0.232)      Loss 0.4352 (0.4352)    Prec 84.375%
(84.375%)
 * Prec 80.910%
best acc: 81.170000
Epoch: [45][0/391]      Time 0.335 (0.335)      Data 0.286 (0.286)      Loss
0.5577 (0.5577)    Prec 82.812% (82.812%)
Epoch: [45][100/391]    Time 0.054 (0.056)      Data 0.002 (0.005)      Loss
0.6345 (0.4986)    Prec 78.125% (82.673%)
Epoch: [45][200/391]    Time 0.053 (0.055)      Data 0.001 (0.003)      Loss
0.4692 (0.5029)    Prec 83.594% (82.673%)
Epoch: [45][300/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.3867 (0.4971)    Prec 85.938% (82.875%)
Validation starts
Test: [0/79]    Time 0.250 (0.250)      Loss 0.4669 (0.4669)    Prec 85.938%
(85.938%)
 * Prec 80.220%
best acc: 81.170000
Epoch: [46][0/391]      Time 0.299 (0.299)      Data 0.253 (0.253)      Loss
0.6433 (0.6433)    Prec 76.562% (76.562%)
Epoch: [46][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.3565 (0.4776)    Prec 88.281% (83.284%)
Epoch: [46][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.3959 (0.4853)    Prec 87.500% (83.283%)
Epoch: [46][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.5149 (0.4946)    Prec 82.812% (83.140%)
Validation starts
Test: [0/79]    Time 0.205 (0.205)      Loss 0.5235 (0.5235)    Prec 82.812%
(82.812%)
 * Prec 79.300%
best acc: 81.170000
Epoch: [47][0/391]      Time 0.265 (0.265)      Data 0.217 (0.217)      Loss
0.6327 (0.6327)    Prec 82.031% (82.031%)
Epoch: [47][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
0.4767 (0.4894)    Prec 85.156% (83.130%)
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Epoch: [47][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5415 (0.4956)    Prec 85.156% (82.855%)
Epoch: [47][300/391]    Time 0.054 (0.054)      Data 0.002 (0.002)      Loss
0.4855 (0.4941)    Prec 82.812% (82.979%)
Validation starts
Test: [0/79]    Time 0.214 (0.214)      Loss 0.4319 (0.4319)    Prec 85.938%
(85.938%)
 * Prec 81.310%
best acc: 81.310000
Epoch: [48][0/391]      Time 0.286 (0.286)      Data 0.241 (0.241)      Loss
0.5485 (0.5485)    Prec 80.469% (80.469%)
Epoch: [48][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.4268 (0.4867)    Prec 84.375% (83.253%)
Epoch: [48][200/391]    Time 0.054 (0.054)      Data 0.002 (0.003)      Loss
0.5166 (0.4964)    Prec 81.250% (82.801%)
Epoch: [48][300/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.4800 (0.4974)    Prec 79.688% (82.729%)
Validation starts
Test: [0/79]    Time 0.245 (0.245)      Loss 0.3787 (0.3787)    Prec 87.500%
(87.500%)
 * Prec 81.440%
best acc: 81.440000
Epoch: [49][0/391]      Time 0.252 (0.252)      Data 0.210 (0.210)      Loss
0.3448 (0.3448)    Prec 89.062% (89.062%)
Epoch: [49][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5173 (0.4955)    Prec 85.156% (82.673%)
Epoch: [49][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4763 (0.4910)    Prec 82.031% (82.991%)
Epoch: [49][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5172 (0.4905)    Prec 82.812% (83.010%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.5571 (0.5571)    Prec 85.938%
(85.938%)
 * Prec 78.130%
best acc: 81.440000
Epoch: [50][0/391]      Time 0.303 (0.303)      Data 0.264 (0.264)      Loss
0.6130 (0.6130)    Prec 79.688% (79.688%)
Epoch: [50][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.5655 (0.4932)    Prec 79.688% (82.751%)
Epoch: [50][200/391]    Time 0.057 (0.054)      Data 0.001 (0.003)      Loss
0.5125 (0.4946)    Prec 78.125% (82.879%)
Epoch: [50][300/391]    Time 0.055 (0.054)      Data 0.001 (0.002)      Loss
0.5543 (0.4975)    Prec 81.250% (82.919%)
Validation starts
Test: [0/79]    Time 0.231 (0.231)      Loss 0.4180 (0.4180)    Prec 87.500%
(87.500%)
 * Prec 81.880%
best acc: 81.880000
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Epoch: [51][0/391]      Time 0.272 (0.272)      Data 0.222 (0.222)      Loss
0.3707 (0.3707)    Prec 87.500% (87.500%)
Epoch: [51][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5101 (0.4829)    Prec 81.250% (83.601%)
Epoch: [51][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4313 (0.4859)    Prec 81.250% (83.259%)
Epoch: [51][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.6137 (0.4933)    Prec 80.469% (83.010%)
Validation starts
Test: [0/79]    Time 0.246 (0.246)      Loss 0.5608 (0.5608)    Prec 82.812%
(82.812%)
 * Prec 77.400%
best acc: 81.880000
Epoch: [52][0/391]      Time 0.279 (0.279)      Data 0.230 (0.230)      Loss
0.4298 (0.4298)    Prec 85.156% (85.156%)
Epoch: [52][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.6255 (0.4904)    Prec 82.812% (83.269%)
Epoch: [52][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.5064 (0.4929)    Prec 85.156% (83.306%)
Epoch: [52][300/391]    Time 0.054 (0.054)      Data 0.002 (0.002)      Loss
0.4026 (0.4970)    Prec 83.594% (83.142%)
Validation starts
Test: [0/79]    Time 0.293 (0.293)      Loss 0.4590 (0.4590)    Prec 84.375%
(84.375%)
 * Prec 81.740%
best acc: 81.880000
Epoch: [53][0/391]      Time 0.265 (0.265)      Data 0.220 (0.220)      Loss
0.4650 (0.4650)    Prec 84.375% (84.375%)
Epoch: [53][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.3882 (0.4937)    Prec 86.719% (83.075%)
Epoch: [53][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.6888 (0.4939)    Prec 74.219% (82.952%)
Epoch: [53][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.3379 (0.4931)    Prec 85.938% (82.888%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.4263 (0.4263)    Prec 87.500%
(87.500%)
 * Prec 81.470%
best acc: 81.880000
Epoch: [54][0/391]      Time 0.291 (0.291)      Data 0.240 (0.240)      Loss
0.3935 (0.3935)    Prec 85.156% (85.156%)
Epoch: [54][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.4032 (0.4889)    Prec 85.156% (82.805%)
Epoch: [54][200/391]    Time 0.063 (0.054)      Data 0.002 (0.003)      Loss
0.5821 (0.4833)    Prec 82.031% (82.902%)
Epoch: [54][300/391]    Time 0.049 (0.054)      Data 0.002 (0.003)      Loss
0.4829 (0.4844)    Prec 81.250% (83.158%)
Validation starts
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Test: [0/79]    Time 0.231 (0.231)      Loss 0.4640 (0.4640)    Prec 85.156%
(85.156%)
 * Prec 79.710%
best acc: 81.880000
Epoch: [55][0/391]      Time 0.278 (0.278)      Data 0.226 (0.226)      Loss
0.4555 (0.4555)    Prec 82.031% (82.031%)
Epoch: [55][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.5105 (0.4784)    Prec 82.812% (83.772%)
Epoch: [55][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.5433 (0.4866)    Prec 84.375% (83.465%)
Epoch: [55][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.6301 (0.4931)    Prec 79.688% (83.155%)
Validation starts
Test: [0/79]    Time 0.256 (0.256)      Loss 0.5206 (0.5206)    Prec 83.594%
(83.594%)
 * Prec 80.650%
best acc: 81.880000
Epoch: [56][0/391]      Time 0.285 (0.285)      Data 0.234 (0.234)      Loss
0.5315 (0.5315)    Prec 79.688% (79.688%)
Epoch: [56][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.5459 (0.4823)    Prec 83.594% (82.797%)
Epoch: [56][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4561 (0.4813)    Prec 83.594% (83.061%)
Epoch: [56][300/391]    Time 0.052 (0.054)      Data 0.001 (0.002)      Loss
0.5877 (0.4833)    Prec 82.812% (83.217%)
Validation starts
Test: [0/79]    Time 0.218 (0.218)      Loss 0.5379 (0.5379)    Prec 82.031%
(82.031%)
 * Prec 80.340%
best acc: 81.880000
Epoch: [57][0/391]      Time 0.279 (0.279)      Data 0.226 (0.226)      Loss
0.4010 (0.4010)    Prec 85.938% (85.938%)
Epoch: [57][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.7208 (0.4844)    Prec 77.344% (83.099%)
Epoch: [57][200/391]    Time 0.050 (0.054)      Data 0.002 (0.003)      Loss
0.6268 (0.4884)    Prec 77.344% (83.069%)
Epoch: [57][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5695 (0.4871)    Prec 78.906% (83.049%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.4367 (0.4367)    Prec 88.281%
(88.281%)
 * Prec 81.440%
best acc: 81.880000
Epoch: [58][0/391]      Time 0.272 (0.272)      Data 0.222 (0.222)      Loss
0.4879 (0.4879)    Prec 85.156% (85.156%)
Epoch: [58][100/391]    Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.4374 (0.4784)    Prec 85.938% (83.563%)
Epoch: [58][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
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0.3926 (0.4812)    Prec 86.719% (83.392%)
Epoch: [58][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.4816 (0.4828)    Prec 85.156% (83.381%)
Validation starts
Test: [0/79]    Time 0.235 (0.235)      Loss 0.4569 (0.4569)    Prec 83.594%
(83.594%)
 * Prec 80.510%
best acc: 81.880000
Epoch: [59][0/391]      Time 0.314 (0.314)      Data 0.265 (0.265)      Loss
0.4488 (0.4488)    Prec 85.938% (85.938%)
Epoch: [59][100/391]    Time 0.051 (0.056)      Data 0.001 (0.004)      Loss
0.4335 (0.4806)    Prec 84.375% (83.455%)
Epoch: [59][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4546 (0.4834)    Prec 84.375% (83.477%)
Epoch: [59][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4278 (0.4826)    Prec 85.938% (83.493%)
Validation starts
Test: [0/79]    Time 0.239 (0.239)      Loss 0.4504 (0.4504)    Prec 82.031%
(82.031%)
 * Prec 79.820%
best acc: 81.880000
Epoch: [60][0/391]      Time 0.298 (0.298)      Data 0.250 (0.250)      Loss
0.4921 (0.4921)    Prec 81.250% (81.250%)
Epoch: [60][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.5264 (0.4964)    Prec 79.688% (82.696%)
Epoch: [60][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4657 (0.4897)    Prec 85.938% (83.178%)
Epoch: [60][300/391]    Time 0.054 (0.054)      Data 0.002 (0.002)      Loss
0.4310 (0.4902)    Prec 85.156% (83.171%)
Validation starts
Test: [0/79]    Time 0.190 (0.190)      Loss 0.4369 (0.4369)    Prec 85.938%
(85.938%)
 * Prec 79.980%
best acc: 81.880000
Epoch: [61][0/391]      Time 0.270 (0.270)      Data 0.232 (0.232)      Loss
0.4406 (0.4406)    Prec 85.156% (85.156%)
Epoch: [61][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
0.4494 (0.4828)    Prec 85.938% (83.385%)
Epoch: [61][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.3630 (0.4835)    Prec 86.719% (83.427%)
Epoch: [61][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5607 (0.4815)    Prec 80.469% (83.376%)
Validation starts
Test: [0/79]    Time 0.220 (0.220)      Loss 0.4633 (0.4633)    Prec 87.500%
(87.500%)
 * Prec 78.940%
best acc: 81.880000
Epoch: [62][0/391]      Time 0.276 (0.276)      Data 0.234 (0.234)      Loss
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0.4661 (0.4661)    Prec 84.375% (84.375%)
Epoch: [62][100/391]    Time 0.050 (0.055)      Data 0.002 (0.004)      Loss
0.4603 (0.4931)    Prec 81.250% (83.122%)
Epoch: [62][200/391]    Time 0.055 (0.054)      Data 0.002 (0.003)      Loss
0.4947 (0.4913)    Prec 80.469% (83.123%)
Epoch: [62][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.6335 (0.4902)    Prec 80.469% (83.210%)
Validation starts
Test: [0/79]    Time 0.267 (0.267)      Loss 0.4382 (0.4382)    Prec 85.938%
(85.938%)
 * Prec 82.040%
best acc: 82.040000
Epoch: [63][0/391]      Time 0.293 (0.293)      Data 0.241 (0.241)      Loss
0.5582 (0.5582)    Prec 80.469% (80.469%)
Epoch: [63][100/391]    Time 0.051 (0.056)      Data 0.001 (0.004)      Loss
0.5326 (0.4843)    Prec 80.469% (83.037%)
Epoch: [63][200/391]    Time 0.054 (0.054)      Data 0.002 (0.003)      Loss
0.4869 (0.4840)    Prec 82.812% (83.244%)
Epoch: [63][300/391]    Time 0.050 (0.054)      Data 0.002 (0.002)      Loss
0.4888 (0.4852)    Prec 81.250% (83.181%)
Validation starts
Test: [0/79]    Time 0.212 (0.212)      Loss 0.4672 (0.4672)    Prec 82.812%
(82.812%)
 * Prec 79.510%
best acc: 82.040000
Epoch: [64][0/391]      Time 0.287 (0.287)      Data 0.246 (0.246)      Loss
0.4893 (0.4893)    Prec 82.031% (82.031%)
Epoch: [64][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.3305 (0.4813)    Prec 85.938% (83.687%)
Epoch: [64][200/391]    Time 0.056 (0.055)      Data 0.002 (0.003)      Loss
0.4695 (0.4811)    Prec 83.594% (83.780%)
Epoch: [64][300/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.3707 (0.4819)    Prec 86.719% (83.568%)
Validation starts
Test: [0/79]    Time 0.224 (0.224)      Loss 0.4989 (0.4989)    Prec 84.375%
(84.375%)
 * Prec 81.780%
best acc: 82.040000
Epoch: [65][0/391]      Time 0.285 (0.285)      Data 0.238 (0.238)      Loss
0.3965 (0.3965)    Prec 83.594% (83.594%)
Epoch: [65][100/391]    Time 0.056 (0.055)      Data 0.002 (0.004)      Loss
0.5554 (0.4741)    Prec 82.031% (83.555%)
Epoch: [65][200/391]    Time 0.054 (0.054)      Data 0.003 (0.003)      Loss
0.3644 (0.4766)    Prec 88.281% (83.567%)
Epoch: [65][300/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.5781 (0.4817)    Prec 81.250% (83.469%)
Validation starts
Test: [0/79]    Time 0.228 (0.228)      Loss 0.3969 (0.3969)    Prec 86.719%
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(86.719%)
 * Prec 82.130%
best acc: 82.130000
Epoch: [66][0/391]      Time 0.279 (0.279)      Data 0.236 (0.236)      Loss
0.3665 (0.3665)    Prec 86.719% (86.719%)
Epoch: [66][100/391]    Time 0.052 (0.055)      Data 0.001 (0.004)      Loss
0.3948 (0.4791)    Prec 85.156% (83.632%)
Epoch: [66][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.3901 (0.4755)    Prec 84.375% (83.660%)
Epoch: [66][300/391]    Time 0.052 (0.054)      Data 0.001 (0.002)      Loss
0.4077 (0.4718)    Prec 88.281% (83.711%)
Validation starts
Test: [0/79]    Time 0.239 (0.239)      Loss 0.5166 (0.5166)    Prec 82.812%
(82.812%)
 * Prec 80.690%
best acc: 82.130000
Epoch: [67][0/391]      Time 0.351 (0.351)      Data 0.301 (0.301)      Loss
0.5266 (0.5266)    Prec 82.812% (82.812%)
Epoch: [67][100/391]    Time 0.053 (0.056)      Data 0.002 (0.005)      Loss
0.4713 (0.4665)    Prec 82.812% (83.795%)
Epoch: [67][200/391]    Time 0.049 (0.054)      Data 0.002 (0.003)      Loss
0.4107 (0.4668)    Prec 85.156% (83.986%)
Epoch: [67][300/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5889 (0.4766)    Prec 79.688% (83.677%)
Validation starts
Test: [0/79]    Time 0.192 (0.192)      Loss 0.4326 (0.4326)    Prec 89.062%
(89.062%)
 * Prec 81.470%
best acc: 82.130000
Epoch: [68][0/391]      Time 0.273 (0.273)      Data 0.225 (0.225)      Loss
0.5525 (0.5525)    Prec 84.375% (84.375%)
Epoch: [68][100/391]    Time 0.050 (0.055)      Data 0.002 (0.004)      Loss
0.7162 (0.4737)    Prec 76.562% (83.818%)
Epoch: [68][200/391]    Time 0.054 (0.054)      Data 0.001 (0.003)      Loss
0.5005 (0.4760)    Prec 82.812% (83.516%)
Epoch: [68][300/391]    Time 0.057 (0.054)      Data 0.001 (0.002)      Loss
0.4562 (0.4726)    Prec 81.250% (83.612%)
Validation starts
Test: [0/79]    Time 0.237 (0.237)      Loss 0.5544 (0.5544)    Prec 81.250%
(81.250%)
 * Prec 80.630%
best acc: 82.130000
Epoch: [69][0/391]      Time 0.285 (0.285)      Data 0.233 (0.233)      Loss
0.5696 (0.5696)    Prec 82.812% (82.812%)
Epoch: [69][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.3549 (0.4724)    Prec 85.156% (83.470%)
Epoch: [69][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5036 (0.4784)    Prec 81.250% (83.349%)
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Epoch: [69][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5559 (0.4742)    Prec 81.250% (83.550%)
Validation starts
Test: [0/79]    Time 0.248 (0.248)      Loss 0.4724 (0.4724)    Prec 82.812%
(82.812%)
 * Prec 81.590%
best acc: 82.130000
Epoch: [70][0/391]      Time 0.270 (0.270)      Data 0.225 (0.225)      Loss
0.5439 (0.5439)    Prec 82.031% (82.031%)
Epoch: [70][100/391]    Time 0.054 (0.055)      Data 0.002 (0.004)      Loss
0.4465 (0.4779)    Prec 84.375% (83.222%)
Epoch: [70][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4275 (0.4753)    Prec 87.500% (83.287%)
Epoch: [70][300/391]    Time 0.055 (0.054)      Data 0.002 (0.002)      Loss
0.5264 (0.4761)    Prec 81.250% (83.295%)
Validation starts
Test: [0/79]    Time 0.215 (0.215)      Loss 0.4672 (0.4672)    Prec 82.812%
(82.812%)
 * Prec 81.380%
best acc: 82.130000
Epoch: [71][0/391]      Time 0.257 (0.257)      Data 0.212 (0.212)      Loss
0.4293 (0.4293)    Prec 85.156% (85.156%)
Epoch: [71][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.4123 (0.4746)    Prec 89.844% (83.911%)
Epoch: [71][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5203 (0.4783)    Prec 78.125% (83.664%)
Epoch: [71][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.3985 (0.4772)    Prec 85.156% (83.679%)
Validation starts
Test: [0/79]    Time 0.265 (0.265)      Loss 0.4760 (0.4760)    Prec 86.719%
(86.719%)
 * Prec 81.490%
best acc: 82.130000
Epoch: [72][0/391]      Time 0.308 (0.308)      Data 0.264 (0.264)      Loss
0.4864 (0.4864)    Prec 81.250% (81.250%)
Epoch: [72][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5835 (0.4545)    Prec 79.688% (84.097%)
Epoch: [72][200/391]    Time 0.056 (0.054)      Data 0.002 (0.003)      Loss
0.5200 (0.4645)    Prec 82.812% (83.967%)
Epoch: [72][300/391]    Time 0.049 (0.054)      Data 0.001 (0.002)      Loss
0.5772 (0.4685)    Prec 80.469% (83.853%)
Validation starts
Test: [0/79]    Time 0.245 (0.245)      Loss 0.4580 (0.4580)    Prec 85.156%
(85.156%)
 * Prec 81.750%
best acc: 82.130000
Epoch: [73][0/391]      Time 0.265 (0.265)      Data 0.222 (0.222)      Loss
0.4321 (0.4321)    Prec 84.375% (84.375%)
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Epoch: [73][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
0.4770 (0.4682)    Prec 80.469% (83.710%)
Epoch: [73][200/391]    Time 0.050 (0.054)      Data 0.002 (0.003)      Loss
0.4282 (0.4719)    Prec 87.500% (83.621%)
Epoch: [73][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4409 (0.4694)    Prec 86.719% (83.731%)
Validation starts
Test: [0/79]    Time 0.218 (0.218)      Loss 0.5312 (0.5312)    Prec 82.031%
(82.031%)
 * Prec 79.770%
best acc: 82.130000
Epoch: [74][0/391]      Time 0.320 (0.320)      Data 0.269 (0.269)      Loss
0.3194 (0.3194)    Prec 89.062% (89.062%)
Epoch: [74][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.3359 (0.4700)    Prec 87.500% (83.803%)
Epoch: [74][200/391]    Time 0.052 (0.055)      Data 0.002 (0.003)      Loss
0.5362 (0.4802)    Prec 83.594% (83.570%)
Epoch: [74][300/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4095 (0.4837)    Prec 85.938% (83.495%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.3801 (0.3801)    Prec 90.625%
(90.625%)
 * Prec 81.260%
best acc: 82.130000
Epoch: [75][0/391]      Time 0.273 (0.273)      Data 0.226 (0.226)      Loss
0.4849 (0.4849)    Prec 82.031% (82.031%)
Epoch: [75][100/391]    Time 0.054 (0.055)      Data 0.002 (0.004)      Loss
0.4727 (0.4771)    Prec 82.812% (83.803%)
Epoch: [75][200/391]    Time 0.051 (0.054)      Data 0.004 (0.003)      Loss
0.4516 (0.4785)    Prec 83.594% (83.640%)
Epoch: [75][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.3846 (0.4769)    Prec 84.375% (83.749%)
Validation starts
Test: [0/79]    Time 0.232 (0.232)      Loss 0.4615 (0.4615)    Prec 83.594%
(83.594%)
 * Prec 80.850%
best acc: 82.130000
Epoch: [76][0/391]      Time 0.233 (0.233)      Data 0.186 (0.186)      Loss
0.4150 (0.4150)    Prec 83.594% (83.594%)
Epoch: [76][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.4374 (0.4566)    Prec 84.375% (84.213%)
Epoch: [76][200/391]    Time 0.055 (0.054)      Data 0.002 (0.003)      Loss
0.5707 (0.4647)    Prec 75.781% (84.021%)
Epoch: [76][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.6233 (0.4677)    Prec 78.906% (84.030%)
Validation starts
Test: [0/79]    Time 0.240 (0.240)      Loss 0.4371 (0.4371)    Prec 89.062%
(89.062%)
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 * Prec 81.620%
best acc: 82.130000
Epoch: [77][0/391]      Time 0.280 (0.280)      Data 0.233 (0.233)      Loss
0.4138 (0.4138)    Prec 87.500% (87.500%)
Epoch: [77][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.4838 (0.4714)    Prec 84.375% (83.571%)
Epoch: [77][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.4526 (0.4686)    Prec 83.594% (83.811%)
Epoch: [77][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4684 (0.4708)    Prec 85.156% (83.765%)
Validation starts
Test: [0/79]    Time 0.245 (0.245)      Loss 0.4533 (0.4533)    Prec 83.594%
(83.594%)
 * Prec 80.120%
best acc: 82.130000
Epoch: [78][0/391]      Time 0.287 (0.287)      Data 0.238 (0.238)      Loss
0.3842 (0.3842)    Prec 87.500% (87.500%)
Epoch: [78][100/391]    Time 0.054 (0.057)      Data 0.002 (0.005)      Loss
0.5427 (0.4581)    Prec 84.375% (84.174%)
Epoch: [78][200/391]    Time 0.053 (0.055)      Data 0.002 (0.003)      Loss
0.4049 (0.4609)    Prec 85.156% (84.060%)
Epoch: [78][300/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.4603 (0.4652)    Prec 84.375% (83.993%)
Validation starts
Test: [0/79]    Time 0.224 (0.224)      Loss 0.5452 (0.5452)    Prec 85.156%
(85.156%)
 * Prec 81.600%
best acc: 82.130000
Epoch: [79][0/391]      Time 0.271 (0.271)      Data 0.221 (0.221)      Loss
0.4880 (0.4880)    Prec 82.031% (82.031%)
Epoch: [79][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5008 (0.4696)    Prec 82.031% (83.864%)
Epoch: [79][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4209 (0.4683)    Prec 83.594% (83.920%)
Epoch: [79][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.4629 (0.4729)    Prec 85.156% (83.799%)
Validation starts
Test: [0/79]    Time 0.239 (0.239)      Loss 0.4370 (0.4370)    Prec 87.500%
(87.500%)
 * Prec 80.920%
best acc: 82.130000
Epoch: [80][0/391]      Time 0.304 (0.304)      Data 0.256 (0.256)      Loss
0.3838 (0.3838)    Prec 84.375% (84.375%)
Epoch: [80][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.5549 (0.4721)    Prec 79.688% (83.764%)
Epoch: [80][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.5116 (0.4756)    Prec 79.688% (83.586%)
Epoch: [80][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
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0.5317 (0.4725)    Prec 81.250% (83.749%)
Validation starts
Test: [0/79]    Time 0.233 (0.233)      Loss 0.5749 (0.5749)    Prec 79.688%
(79.688%)
 * Prec 79.350%
best acc: 82.130000
Epoch: [81][0/391]      Time 0.269 (0.269)      Data 0.220 (0.220)      Loss
0.5479 (0.5479)    Prec 78.125% (78.125%)
Epoch: [81][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.4007 (0.4628)    Prec 88.281% (84.213%)
Epoch: [81][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.3902 (0.4655)    Prec 87.500% (84.111%)
Epoch: [81][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4490 (0.4698)    Prec 85.156% (83.905%)
Validation starts
Test: [0/79]    Time 0.229 (0.229)      Loss 0.5489 (0.5489)    Prec 77.344%
(77.344%)
 * Prec 81.010%
best acc: 82.130000
Epoch: [82][0/391]      Time 0.304 (0.304)      Data 0.256 (0.256)      Loss
0.4461 (0.4461)    Prec 82.812% (82.812%)
Epoch: [82][100/391]    Time 0.053 (0.055)      Data 0.002 (0.004)      Loss
0.5275 (0.4723)    Prec 79.688% (83.687%)
Epoch: [82][200/391]    Time 0.052 (0.054)      Data 0.002 (0.003)      Loss
0.5413 (0.4679)    Prec 78.125% (83.776%)
Epoch: [82][300/391]    Time 0.055 (0.054)      Data 0.003 (0.003)      Loss
0.5394 (0.4672)    Prec 84.375% (83.980%)
Validation starts
Test: [0/79]    Time 0.257 (0.257)      Loss 0.5064 (0.5064)    Prec 81.250%
(81.250%)
 * Prec 80.440%
best acc: 82.130000
Epoch: [83][0/391]      Time 0.283 (0.283)      Data 0.230 (0.230)      Loss
0.4833 (0.4833)    Prec 82.812% (82.812%)
Epoch: [83][100/391]    Time 0.054 (0.055)      Data 0.001 (0.004)      Loss
0.3211 (0.4493)    Prec 89.844% (84.553%)
Epoch: [83][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5516 (0.4557)    Prec 82.812% (84.091%)
Epoch: [83][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.3832 (0.4634)    Prec 86.719% (83.908%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.4762 (0.4762)    Prec 81.250%
(81.250%)
 * Prec 80.510%
best acc: 82.130000
Epoch: [84][0/391]      Time 0.276 (0.276)      Data 0.228 (0.228)      Loss
0.5727 (0.5727)    Prec 79.688% (79.688%)
Epoch: [84][100/391]    Time 0.055 (0.055)      Data 0.002 (0.004)      Loss
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0.2558 (0.4595)    Prec 91.406% (84.151%)
Epoch: [84][200/391]    Time 0.051 (0.054)      Data 0.002 (0.003)      Loss
0.3377 (0.4558)    Prec 89.062% (84.227%)
Epoch: [84][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.4555 (0.4637)    Prec 80.469% (83.848%)
Validation starts
Test: [0/79]    Time 0.227 (0.227)      Loss 0.5255 (0.5255)    Prec 82.031%
(82.031%)
 * Prec 81.670%
best acc: 82.130000
Epoch: [85][0/391]      Time 0.291 (0.291)      Data 0.239 (0.239)      Loss
0.3498 (0.3498)    Prec 88.281% (88.281%)
Epoch: [85][100/391]    Time 0.055 (0.055)      Data 0.002 (0.004)      Loss
0.4297 (0.4490)    Prec 88.281% (84.800%)
Epoch: [85][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4115 (0.4587)    Prec 82.812% (84.375%)
Epoch: [85][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5103 (0.4609)    Prec 81.250% (84.180%)
Validation starts
Test: [0/79]    Time 0.201 (0.201)      Loss 0.5831 (0.5831)    Prec 80.469%
(80.469%)
 * Prec 79.370%
best acc: 82.130000
Epoch: [86][0/391]      Time 0.275 (0.275)      Data 0.229 (0.229)      Loss
0.4738 (0.4738)    Prec 83.594% (83.594%)
Epoch: [86][100/391]    Time 0.050 (0.055)      Data 0.001 (0.004)      Loss
0.4858 (0.4482)    Prec 82.031% (84.437%)
Epoch: [86][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4629 (0.4633)    Prec 82.031% (83.924%)
Epoch: [86][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.5998 (0.4605)    Prec 80.469% (84.165%)
Validation starts
Test: [0/79]    Time 0.239 (0.239)      Loss 0.4733 (0.4733)    Prec 85.938%
(85.938%)
 * Prec 81.110%
best acc: 82.130000
Epoch: [87][0/391]      Time 0.308 (0.308)      Data 0.260 (0.260)      Loss
0.4326 (0.4326)    Prec 82.031% (82.031%)
Epoch: [87][100/391]    Time 0.053 (0.055)      Data 0.001 (0.004)      Loss
0.4932 (0.4589)    Prec 85.156% (84.499%)
Epoch: [87][200/391]    Time 0.057 (0.054)      Data 0.002 (0.003)      Loss
0.6043 (0.4708)    Prec 84.375% (83.967%)
Epoch: [87][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.3125 (0.4634)    Prec 90.625% (84.147%)
Validation starts
Test: [0/79]    Time 0.215 (0.215)      Loss 0.4661 (0.4661)    Prec 84.375%
(84.375%)
 * Prec 80.340%
```

```
best acc: 82.130000
Epoch: [88][0/391]      Time 0.325 (0.325)      Data 0.275 (0.275)      Loss
0.5502 (0.5502)    Prec 79.688% (79.688%)
Epoch: [88][100/391]    Time 0.052 (0.056)      Data 0.001 (0.004)      Loss
0.3603 (0.4571)    Prec 85.938% (84.166%)
Epoch: [88][200/391]    Time 0.053 (0.055)      Data 0.001 (0.003)      Loss
0.3742 (0.4562)    Prec 84.375% (84.356%)
Epoch: [88][300/391]    Time 0.054 (0.054)      Data 0.002 (0.002)      Loss
0.4840 (0.4614)    Prec 80.469% (84.248%)
Validation starts
Test: [0/79]    Time 0.275 (0.275)      Loss 0.4344 (0.4344)    Prec 85.938%
(85.938%)
 * Prec 81.410%
best acc: 82.130000
Epoch: [89][0/391]      Time 0.308 (0.308)      Data 0.259 (0.259)      Loss
0.4352 (0.4352)    Prec 85.938% (85.938%)
Epoch: [89][100/391]    Time 0.054 (0.056)      Data 0.002 (0.004)      Loss
0.4131 (0.4650)    Prec 86.719% (84.228%)
Epoch: [89][200/391]    Time 0.052 (0.054)      Data 0.003 (0.003)      Loss
0.4546 (0.4594)    Prec 84.375% (84.258%)
Epoch: [89][300/391]    Time 0.054 (0.054)      Data 0.002 (0.003)      Loss
0.4222 (0.4602)    Prec 86.719% (84.209%)
Validation starts
Test: [0/79]    Time 0.235 (0.235)      Loss 0.6164 (0.6164)    Prec 78.125%
(78.125%)
 * Prec 78.490%
best acc: 82.130000
Epoch: [90][0/391]      Time 0.313 (0.313)      Data 0.259 (0.259)      Loss
0.3554 (0.3554)    Prec 87.500% (87.500%)
Epoch: [90][100/391]    Time 0.055 (0.057)      Data 0.002 (0.005)      Loss
0.5378 (0.4573)    Prec 82.812% (84.251%)
Epoch: [90][200/391]    Time 0.053 (0.055)      Data 0.003 (0.004)      Loss
0.3190 (0.4661)    Prec 87.500% (83.866%)
Epoch: [90][300/391]    Time 0.053 (0.055)      Data 0.002 (0.003)      Loss
0.5108 (0.4654)    Prec 82.812% (83.957%)
Validation starts
Test: [0/79]    Time 0.247 (0.247)      Loss 0.5151 (0.5151)    Prec 81.250%
(81.250%)
 * Prec 82.360%
best acc: 82.360000
Epoch: [91][0/391]      Time 0.355 (0.355)      Data 0.306 (0.306)      Loss
0.4970 (0.4970)    Prec 82.031% (82.031%)
Epoch: [91][100/391]    Time 0.053 (0.056)      Data 0.001 (0.005)      Loss
0.4809 (0.4471)    Prec 81.250% (84.886%)
Epoch: [91][200/391]    Time 0.054 (0.055)      Data 0.002 (0.003)      Loss
0.5636 (0.4596)    Prec 82.812% (84.336%)
Epoch: [91][300/391]    Time 0.054 (0.055)      Data 0.002 (0.003)      Loss
0.4210 (0.4570)    Prec 84.375% (84.476%)
```

```
Validation starts
Test: [0/79]    Time 0.279 (0.279)      Loss 0.5366 (0.5366)    Prec 82.812%
(82.812%)
 * Prec 81.360%
best acc: 82.360000
Epoch: [92][0/391]      Time 0.310 (0.310)      Data 0.261 (0.261)      Loss
0.5009 (0.5009)    Prec 79.688% (79.688%)
Epoch: [92][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.6565 (0.4551)    Prec 78.906% (84.182%)
Epoch: [92][200/391]    Time 0.059 (0.055)      Data 0.002 (0.003)      Loss
0.5513 (0.4561)    Prec 82.031% (84.212%)
Epoch: [92][300/391]    Time 0.053 (0.054)      Data 0.002 (0.002)      Loss
0.4119 (0.4560)    Prec 84.375% (84.224%)
Validation starts
Test: [0/79]    Time 0.251 (0.251)      Loss 0.3963 (0.3963)    Prec 87.500%
(87.500%)
 * Prec 82.790%
best acc: 82.790000
Epoch: [93][0/391]      Time 0.318 (0.318)      Data 0.267 (0.267)      Loss
0.3864 (0.3864)    Prec 87.500% (87.500%)
Epoch: [93][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.4055 (0.4571)    Prec 86.719% (84.290%)
Epoch: [93][200/391]    Time 0.053 (0.055)      Data 0.001 (0.003)      Loss
0.3985 (0.4627)    Prec 85.156% (84.157%)
Epoch: [93][300/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.3416 (0.4646)    Prec 88.281% (83.980%)
Validation starts
Test: [0/79]    Time 0.230 (0.230)      Loss 0.4451 (0.4451)    Prec 85.938%
(85.938%)
 * Prec 82.130%
best acc: 82.790000
Epoch: [94][0/391]      Time 0.270 (0.270)      Data 0.220 (0.220)      Loss
0.4058 (0.4058)    Prec 85.156% (85.156%)
Epoch: [94][100/391]    Time 0.054 (0.055)      Data 0.002 (0.004)      Loss
0.5120 (0.4614)    Prec 82.031% (84.197%)
Epoch: [94][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.3163 (0.4528)    Prec 87.500% (84.309%)
Epoch: [94][300/391]    Time 0.052 (0.054)      Data 0.002 (0.002)      Loss
0.4296 (0.4515)    Prec 87.500% (84.471%)
Validation starts
Test: [0/79]    Time 0.262 (0.262)      Loss 0.5852 (0.5852)    Prec 78.125%
(78.125%)
 * Prec 79.500%
best acc: 82.790000
Epoch: [95][0/391]      Time 0.318 (0.318)      Data 0.263 (0.263)      Loss
0.4895 (0.4895)    Prec 81.250% (81.250%)
Epoch: [95][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.5336 (0.4487)    Prec 82.031% (84.723%)
```

```
Epoch: [95][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.3743 (0.4536)    Prec 87.500% (84.604%)
Epoch: [95][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.5602 (0.4556)    Prec 78.906% (84.357%)
Validation starts
Test: [0/79]    Time 0.223 (0.223)      Loss 0.4988 (0.4988)    Prec 83.594%
(83.594%)
 * Prec 80.680%
best acc: 82.790000
Epoch: [96][0/391]      Time 0.282 (0.282)      Data 0.234 (0.234)      Loss
0.4181 (0.4181)    Prec 85.938% (85.938%)
Epoch: [96][100/391]    Time 0.052 (0.055)      Data 0.002 (0.004)      Loss
0.4488 (0.4479)    Prec 85.156% (84.592%)
Epoch: [96][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4680 (0.4590)    Prec 83.594% (84.126%)
Epoch: [96][300/391]    Time 0.054 (0.054)      Data 0.001 (0.002)      Loss
0.5337 (0.4566)    Prec 79.688% (84.157%)
Validation starts
Test: [0/79]    Time 0.225 (0.225)      Loss 0.4856 (0.4856)    Prec 84.375%
(84.375%)
 * Prec 78.970%
best acc: 82.790000
Epoch: [97][0/391]      Time 0.323 (0.323)      Data 0.275 (0.275)      Loss
0.5845 (0.5845)    Prec 77.344% (77.344%)
Epoch: [97][100/391]    Time 0.053 (0.056)      Data 0.001 (0.004)      Loss
0.6507 (0.4544)    Prec 78.906% (84.228%)
Epoch: [97][200/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.4969 (0.4540)    Prec 83.594% (84.223%)
Epoch: [97][300/391]    Time 0.053 (0.054)      Data 0.001 (0.002)      Loss
0.3228 (0.4556)    Prec 89.844% (84.243%)
Validation starts
Test: [0/79]    Time 0.285 (0.285)      Loss 0.5095 (0.5095)    Prec 83.594%
(83.594%)
 * Prec 82.650%
best acc: 82.790000
Epoch: [98][0/391]      Time 0.322 (0.322)      Data 0.277 (0.277)      Loss
0.4959 (0.4959)    Prec 79.688% (79.688%)
Epoch: [98][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.3675 (0.4373)    Prec 87.500% (84.909%)
Epoch: [98][200/391]    Time 0.053 (0.054)      Data 0.002 (0.003)      Loss
0.4427 (0.4499)    Prec 82.812% (84.422%)
Epoch: [98][300/391]    Time 0.055 (0.054)      Data 0.002 (0.003)      Loss
0.4909 (0.4511)    Prec 82.812% (84.313%)
Validation starts
Test: [0/79]    Time 0.245 (0.245)      Loss 0.5035 (0.5035)    Prec 80.469%
(80.469%)
 * Prec 81.620%
best acc: 82.790000
```

```
Epoch: [99][0/391]      Time 0.328 (0.328)      Data 0.277 (0.277)      Loss
0.3654 (0.3654)    Prec 88.281% (88.281%)
Epoch: [99][100/391]    Time 0.053 (0.056)      Data 0.002 (0.004)      Loss
0.4769 (0.4506)    Prec 85.156% (84.197%)
Epoch: [99][200/391]    Time 0.057 (0.054)      Data 0.002 (0.003)      Loss
0.6086 (0.4494)    Prec 78.906% (84.332%)
Epoch: [99][300/391]    Time 0.053 (0.054)      Data 0.001 (0.003)      Loss
0.5036 (0.4555)    Prec 86.719% (84.204%)
Validation starts
Test: [0/79]    Time 0.237 (0.237)      Loss 0.4666 (0.4666)    Prec 84.375%
(84.375%)
 * Prec 82.150%
best acc: 82.790000
```

[15]:
```
copied_model.cuda()
copied_model.eval()

test_loss = 0
correct = 0

with torch.no_grad():
    for data, target in testloader:
        data, target = data.to(device), target.to(device)  # loading to GPU
        output = copied_model(data)  # use copied_model instead of model
        pred = output.argmax(dim=1, keepdim=True)
        correct += pred.eq(target.view_as(pred)).sum().item()

test_loss /= len(testloader.dataset)

print('\nTest set: Accuracy: {}/{} ({:.0f}%)\n'.format(
        correct, len(testloader.dataset),
        100. * correct / len(testloader.dataset)))
```

```
Test set: Accuracy: 8215/10000 (82%)
```

[ ]:
```

```