

人工智能中的编程大作业

Task 1: PyTorch Basic Implementation

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1.训练模型

```
(ai1) root@pkucamerlab-3ir3m601c4mb-main:/openbayes/home/AI-programming# python Task1/train.py
Using device: cuda
[1, 2000] loss: 2.212
[1, 4000] loss: 1.879
[1, 6000] loss: 1.667
[1, 8000] loss: 1.578
[1, 10000] loss: 1.501
[1, 12000] loss: 1.470
[2, 2000] loss: 1.402
[2, 4000] loss: 1.372
[2, 6000] loss: 1.325
[2, 8000] loss: 1.347
[2, 10000] loss: 1.287
[2, 12000] loss: 1.258
Finished Training
Saved checkpoint to: /output/AI-programming/Task1/checkpoints/cifar_net.pth
Saved loss CSV to: /output/AI-programming/Task1/outputs/loss.csv
Saved loss curve to: /output/AI-programming/Task1/outputs/loss_curve.png
```

2.评估net

```
(ai1) root@pkucamerlab-3ir3m601c4mb-main:/openbayes/home/AI-programming# python Task1/eval.py --ckpt Task1/checkpoints/cifar_net.pth
Using device: cuda
Accuracy of the network on the 10000 test images: 54.46%
Accuracy for class: plane is 55.0%
Accuracy for class: car is 83.2%
Accuracy for class: bird is 36.7%
Accuracy for class: cat is 45.2%
Accuracy for class: deer is 39.0%
Accuracy for class: dog is 31.6%
Accuracy for class: frog is 75.1%
Accuracy for class: horse is 60.4%
Accuracy for class: ship is 60.0%
Accuracy for class: truck is 58.4%
```

3.绘制loss curve

Task1 Training Loss Curve

