## CIFAR-10

```
root@autodl-container-90264f8b69-195a48d3:~/autodl-tmp# python cifar_10.py
Downloading...
# 训练样本: 1000
# 类别: 10
epoch 1, train loss 2.358, train acc 0.106, valid acc 0.141
epoch 2, train loss 2.262, train acc 0.136, valid acc 0.141
epoch 3, train loss 2.227, train acc 0.181, valid acc 0.188
epoch 4, train loss 2.193, train acc 0.194, valid acc 0.203
epoch 5, train loss 2.163, train acc 0.211, valid acc 0.219
epoch 6, train loss 2.136, train acc 0.237, valid acc 0.203
epoch 7, train loss 2.103, train acc 0.249, valid acc 0.219
epoch 8, train loss 2.083, train acc 0.261, valid acc 0.219
epoch 9, train loss 2.062, train acc 0.277, valid acc 0.234
epoch 10, train loss 2.038, train acc 0.265, valid acc 0.234
epoch 11, train loss 1.997, train acc 0.279, valid acc 0.234
epoch 12, train loss 1.999, train acc 0.291, valid acc 0.219
epoch 13, train loss 1.977, train acc 0.301, valid acc 0.250
epoch 14, train loss 1.958, train acc 0.287, valid acc 0.219
epoch 15, train loss 1.937, train acc 0.319, valid acc 0.312
epoch 16, train loss 1.927, train acc 0.314, valid acc 0.234
epoch 17, train loss 1.926, train acc 0.316, valid acc 0.266
epoch 18, train loss 1.895, train acc 0.327, valid acc 0.297
epoch 19, train loss 1.886, train acc 0.327, valid acc 0.281
epoch 20, train loss 1.886, train acc 0.326, valid acc 0.312
epoch 1, train loss 2.310, train acc 0.096
epoch 2, train loss 2.265, train acc 0.143
epoch 3, train loss 2.230, train acc 0.167
epoch 4, train loss 2.191, train acc 0.204
epoch 5, train loss 2.164, train acc 0.205
epoch 6, train loss 2.141, train acc 0.232
epoch 7, train loss 2.122, train acc 0.238
epoch 8, train loss 2.089, train acc 0.242
epoch 9, train loss 2.053, train acc 0.267
epoch 10, train loss 2.038, train acc 0.270
epoch 11, train loss 2.022, train acc 0.277
epoch 12, train loss 1.993, train acc 0.279
epoch 13, train loss 1.985, train acc 0.266
epoch 14, train loss 1.953, train acc 0.320
epoch 15, train loss 1.934, train acc 0.294
epoch 16, train loss 1.944, train acc 0.312
epoch 17, train loss 1.915, train acc 0.334
epoch 18, train loss 1.902, train acc 0.320
epoch 19, train loss 1.896, train acc 0.328
epoch 20, train loss 1.890, train acc 0.331
root@autodl-container-90264f8b69-195a48d3:~/autodl-tmp#
```

代码训练了两次模型,一次用于验证集调优,一次用于生成测试集提交结果。

(后面那个20个epoch是把所有train都用来训练-包含val) ——最终用来预测test