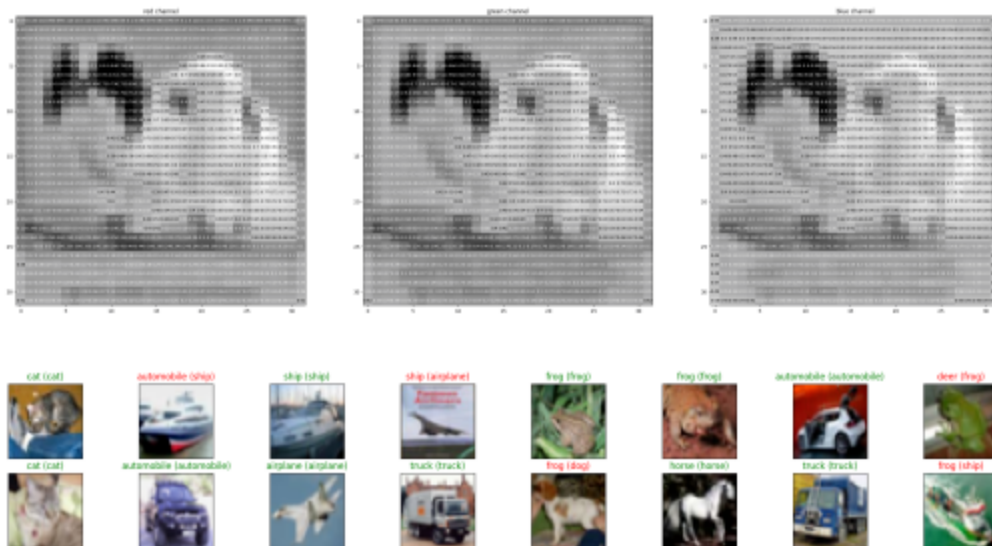
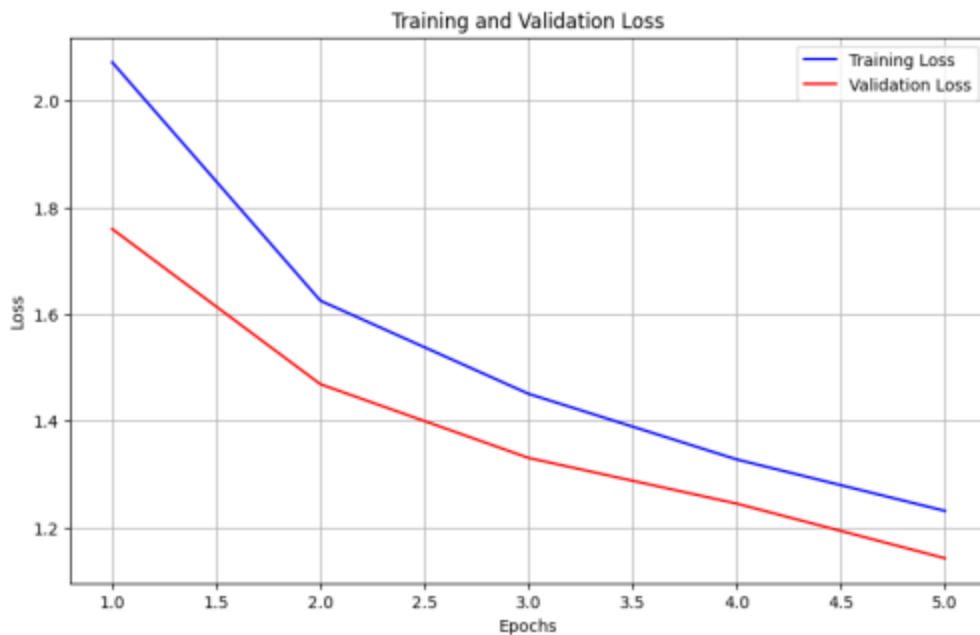


图像分类

cpu训练，5轮

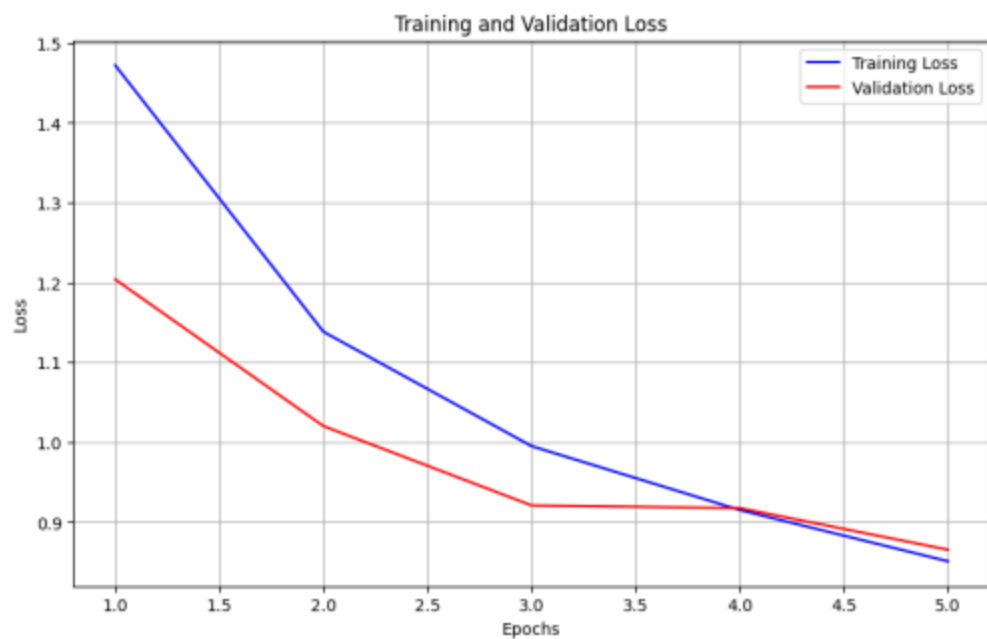
第一次，一切为默认，使用SGD优化器，dropout为0.3

结果如下，发现欠拟合

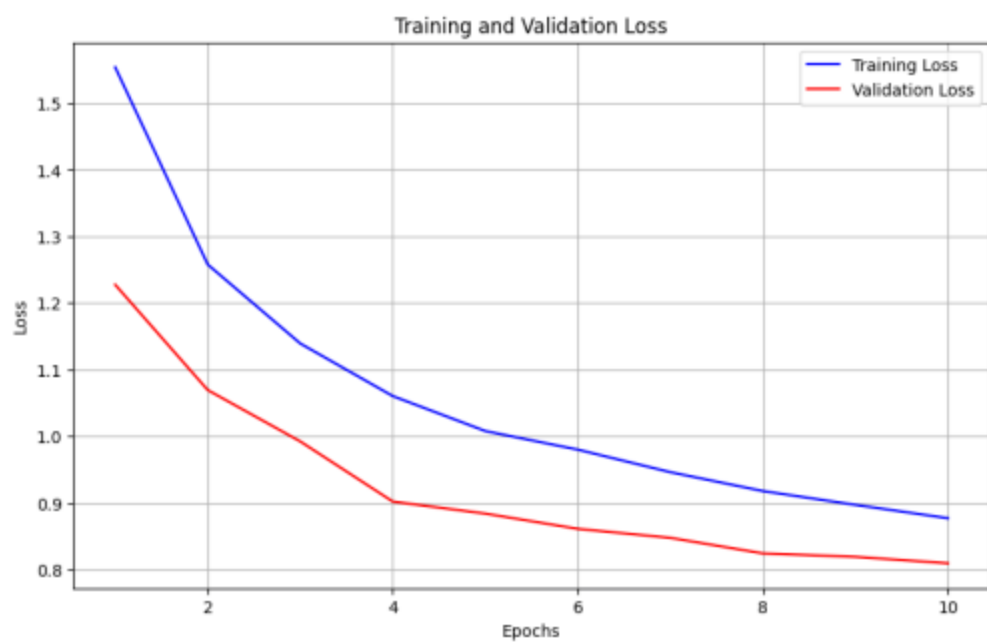


第二次，换成Adam优化器，学习率0.001

发现第五轮过拟合



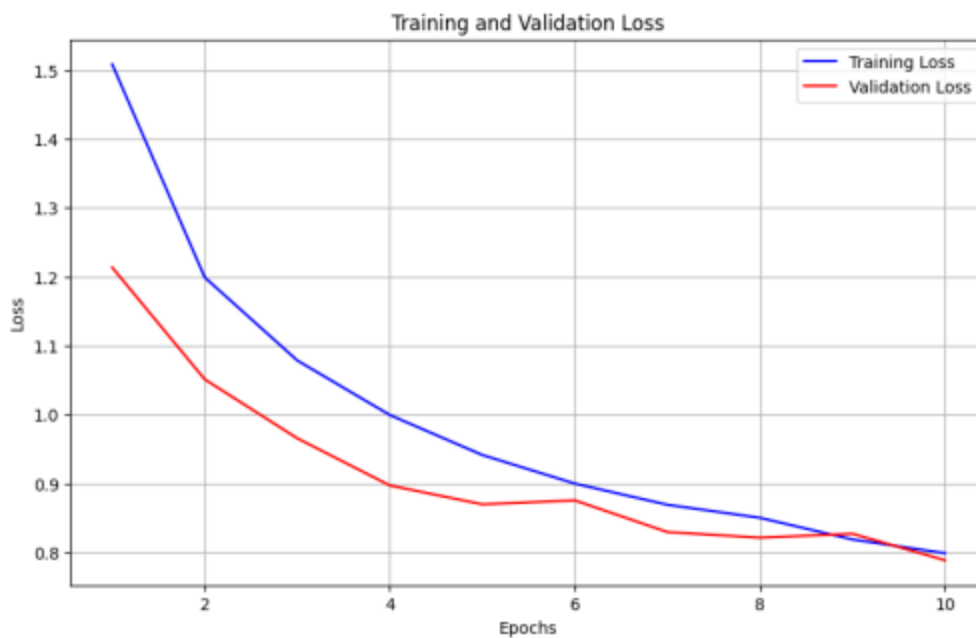
第三次，尝试增加轮数为10，并改为50%的dropout



```
Test Accuracy of airplane: 76% (762/1000)
Test Accuracy of automobile: 78% (782/1000)
Test Accuracy of bird: 46% (466/1000)
Test Accuracy of cat: 62% (626/1000)
Test Accuracy of deer: 69% (698/1000)
Test Accuracy of dog: 59% (591/1000)
Test Accuracy of frog: 74% (740/1000)
Test Accuracy of horse: 73% (730/1000)
Test Accuracy of ship: 86% (860/1000)
Test Accuracy of truck: 86% (865/1000)

Test Accuracy (Overall): 71% (7120/10000)
```

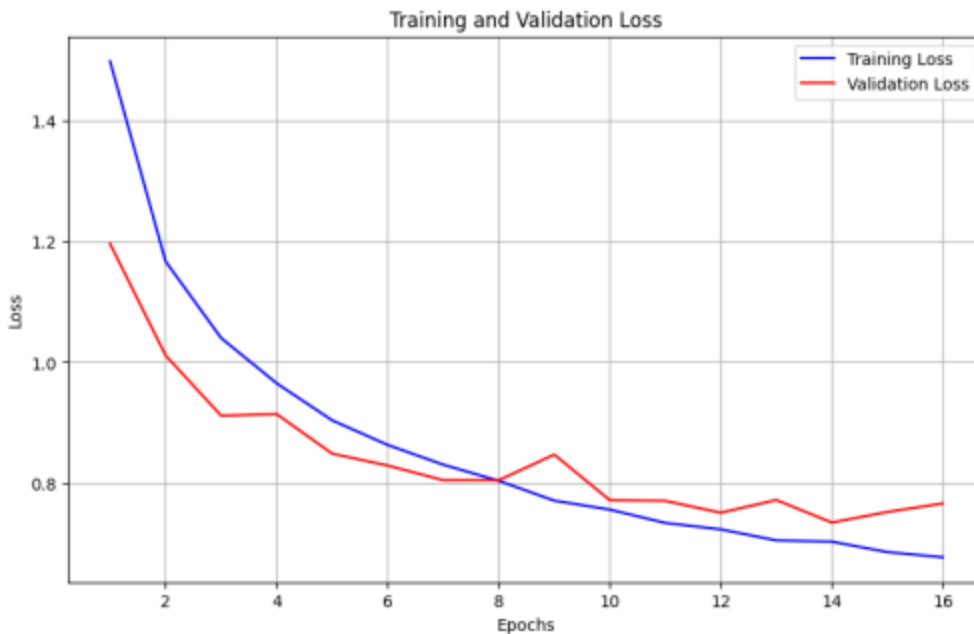
第四次，发现第三次有点欠拟合，dropout改为0.4



```
Test Accuracy of airplane: 79% (790/1000)
Test Accuracy of automobile: 84% (849/1000)
Test Accuracy of bird: 53% (535/1000)
Test Accuracy of cat: 53% (539/1000)
Test Accuracy of deer: 68% (682/1000)
Test Accuracy of dog: 68% (683/1000)
Test Accuracy of frog: 78% (786/1000)
Test Accuracy of horse: 78% (783/1000)
Test Accuracy of ship: 81% (818/1000)
Test Accuracy of truck: 82% (825/1000)
```

```
Test Accuracy (Overall): 72% (7290/10000)
```

第五次，打算增加轮数为16



```
Test Accuracy of airplane: 76% (769/1000)
Test Accuracy of automobile: 86% (860/1000)
Test Accuracy of bird: 61% (619/1000)
Test Accuracy of cat: 63% (630/1000)
Test Accuracy of deer: 74% (744/1000)
Test Accuracy of dog: 54% (549/1000)
Test Accuracy of frog: 76% (767/1000)
Test Accuracy of horse: 76% (768/1000)
Test Accuracy of ship: 85% (853/1000)
Test Accuracy of truck: 83% (839/1000)
```

```
Test Accuracy (Overall): 73% (7398/10000)
```