Bird species recognition using deep learning

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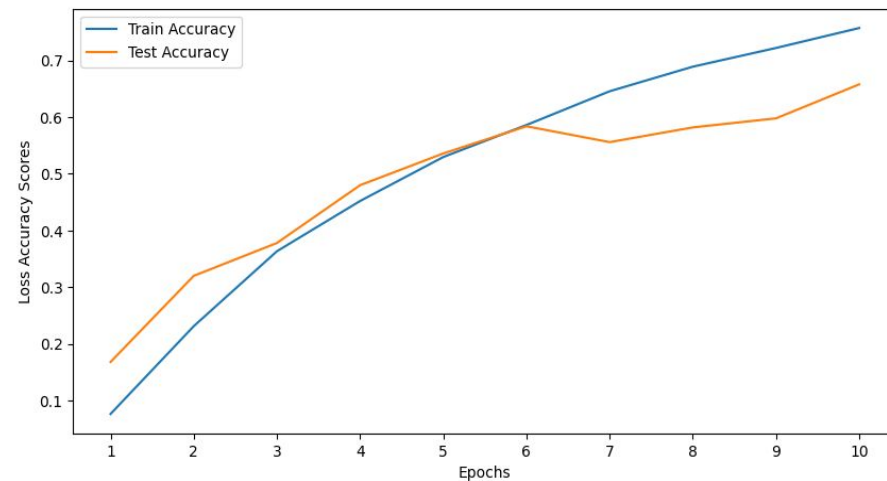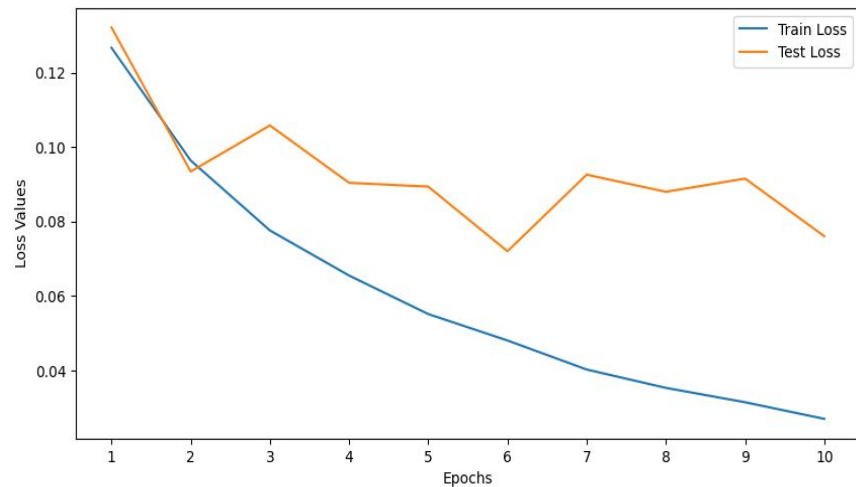
Pretptocesiranje

- Podaci podeljeni u 2 kategorije
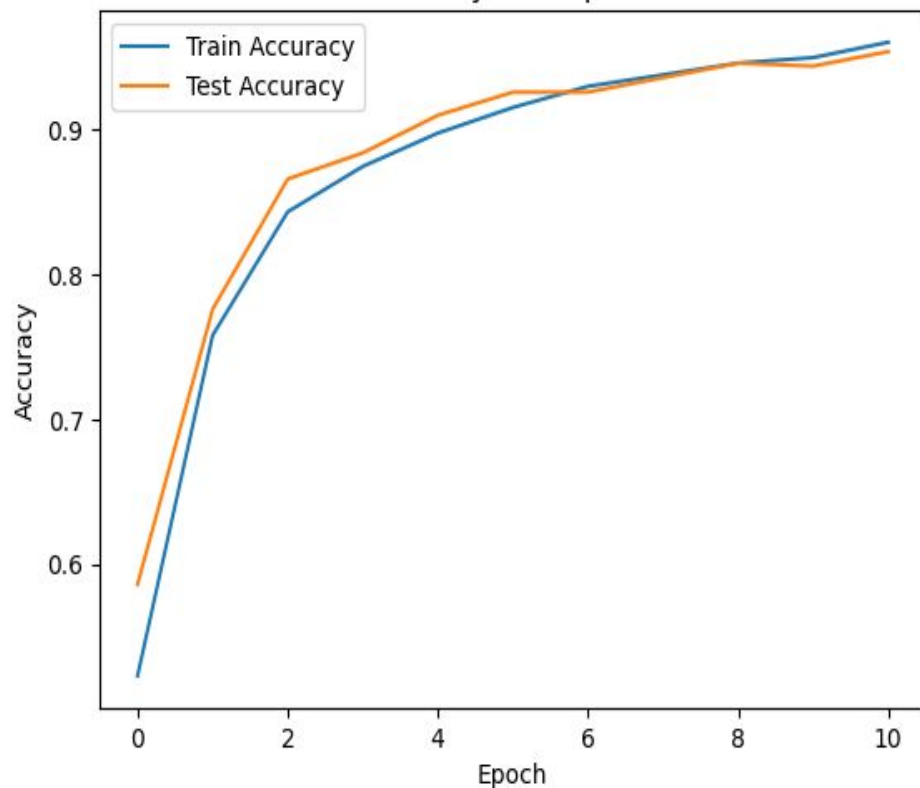- Rotacija, skaliranje, obrtanje i skraćivanje slika

Modeli

- Klasičan model
- ResNet18
- VGG19

Average loss: 0.13211749839782716
Accuracy: 0.168
Average loss: 0.09340506887435913
Accuracy: 0.32
Average loss: 0.10579317617416382
Accuracy: 0.378
Average loss: 0.09038523030281066
Accuracy: 0.48
Average loss: 0.08934893298149109
Accuracy: 0.536
Average loss: 0.07199175083637238
Accuracy: 0.584
Average loss: 0.092569819688797
Accuracy: 0.556
Average loss: 0.08796060156822205
Accuracy: 0.582
Average loss: 0.09152399110794067
Accuracy: 0.598
Average loss: 0.0760469069480896
Accuracy: 0.658

Accuracy over Epochs

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Epoch: 1 Step: 300 Loss: 4.1234297490119936
Test Accuracy: 0.572
Epoch: 2 Step: 600 Loss: 2.822670192718506
Test Accuracy: 0.794
Epoch: 2 Step: 900 Loss: 2.0283568759759265
Test Accuracy: 0.872
Epoch: 3 Step: 1200 Loss: 1.572364919781685
Test Accuracy: 0.896
Epoch: 4 Step: 1500 Loss: 1.327743706703186
Test Accuracy: 0.916
Epoch: 4 Step: 1800 Loss: 1.1127227675914764
Test Accuracy: 0.914
Epoch: 5 Step: 2100 Loss: 0.9873341811696689
Test Accuracy: 0.938
Epoch: 5 Step: 2400 Loss: 0.8678135692079862
Test Accuracy: 0.944
Epoch: 6 Step: 2700 Loss: 0.7655240209897359
Test Accuracy: 0.942
Epoch: 7 Step: 3000 Loss: 0.7106464616457622
Test Accuracy: 0.94
Epoch: 7 Step: 3300 Loss: 0.6383654770751794
Test Accuracy: 0.952
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Hvala na pažnji!