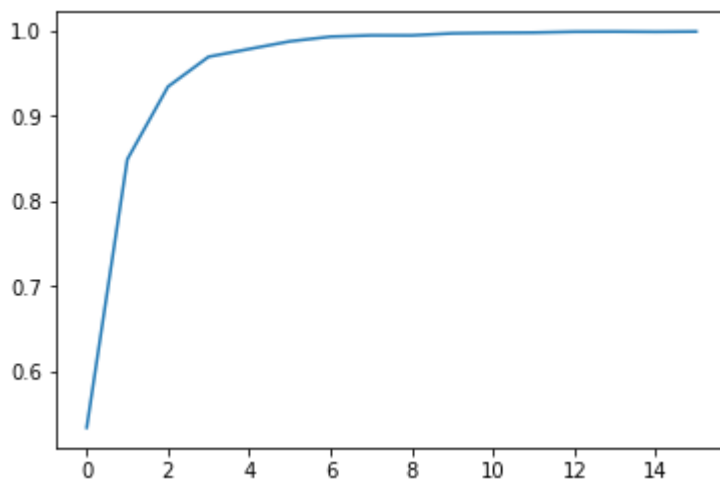


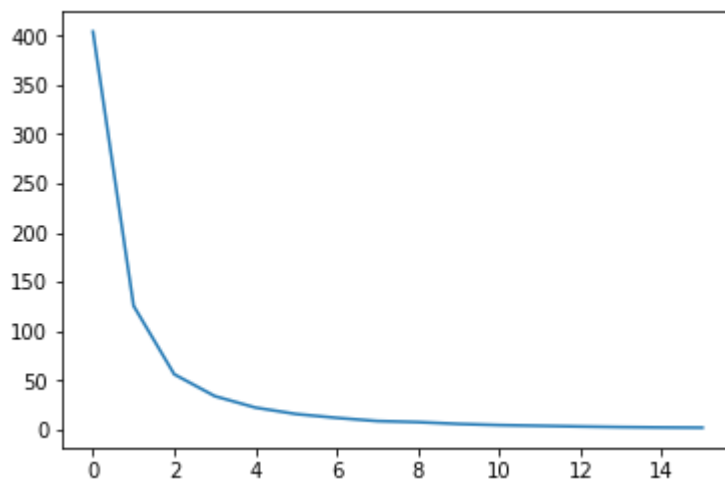
Assignment-2 Question-3

Learning Curves

Overall Accuracy



Loss



F-Scores

Length Prediction

[1. 1.]

Width Prediction

[1. 1.]

Color predictions

[1. 1.]

Angle Prediction

```
[0.99940263 0.99727355 0.99758454 0.9997037 0.9997037 0.99969031
0.99912765 0.9994128 1. 1. 0.99878419 0.99847886]
```

Confusion Matrices

Length Prediction

```
[[ 9940    0]
 [    0 10060]]
```

Width Prediction

```
[[ 9994    0]
 [    0 10006]]
```

Color predictions

```
[[ 9962    0]
 [    0 10038]]
```

Angle Prediction

```
[[1673    0    0    0    0    0    0    0    0    0    0    0]
 [   1 1646     6    0    0    0    0    0    0    0    0    0]
 [   0    2 1652    0    0    0    0    0    0    0    0    0]
 [   0    0    0 1687     1    0    0    0    0    0    0    0]
 [   0    0    0    0 1687     0    0    0    0    0    0    0]
 [   0    0    0    0    0 1614     1    0    0    0    0    0]
 [   0    0    0    0    0    0 1718     0    0    0    0    0]
 [   0    0    0    0    0    0    2 1702     0    0    0    0]
 [   0    0    0    0    0    0    0    0 1649     0    0    0]
 [   0    0    0    0    0    0    0    0    0 1670     0    0]
 [   0    0    0    0    0    0    0    0    0    0 1643     1]
 [   1    0    0    0    0    0    0    0    0    0    3 1641]]
```

Variations tried

- Changed filters to 16 and 32. Lead to overfitting.
- Increased dense layers to 512. Lead to overfitting.

Inferences

- Only misclassification is happening in predicting the angles.
- Even then, angles are misclassified as angles close to the original angles.