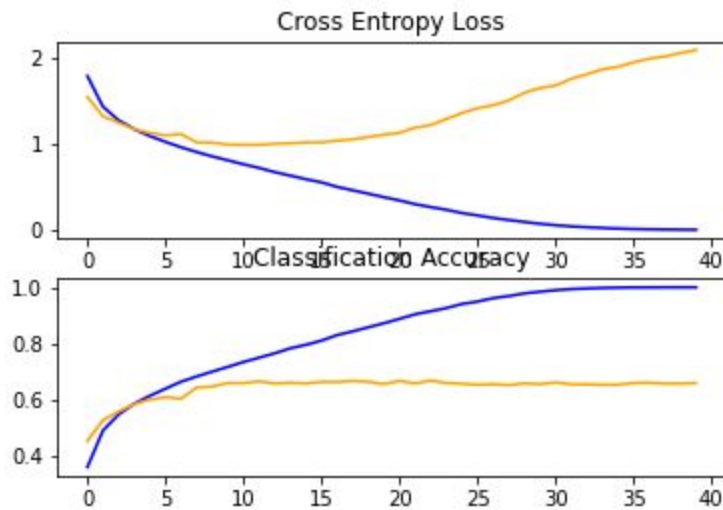


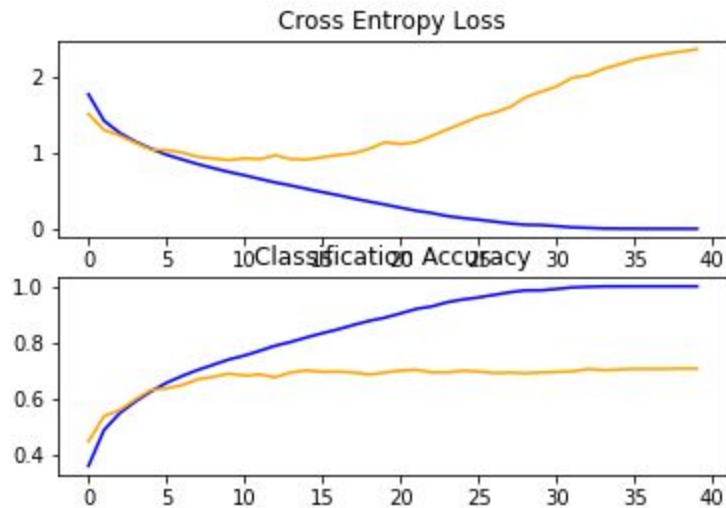
## VGG Block 1

```
In [4]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1.py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Reloaded modules: tmpssss6yaoj
Epochs = 40
> 65.830
```



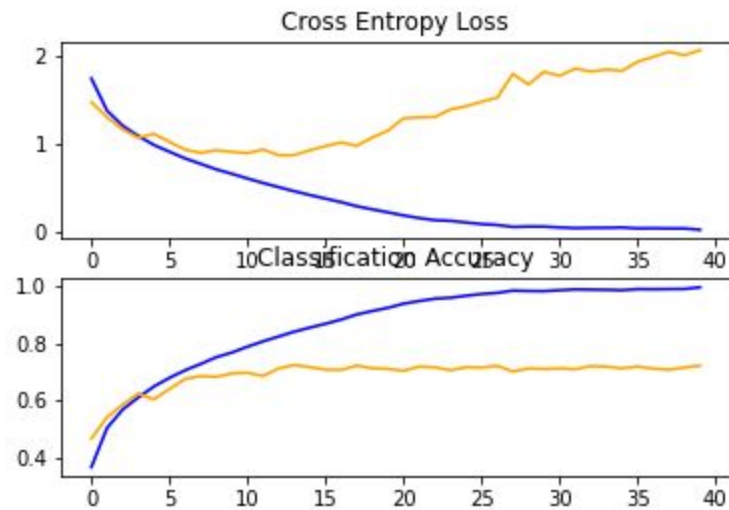
## VGG Block 2

```
In [5]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1.py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Reloaded modules: tmpcchopdmc7
Epochs = 40
> 70.820
```



## VGG Block 3

```
In [6]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1.py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Epochs = 40
> 72.150
```



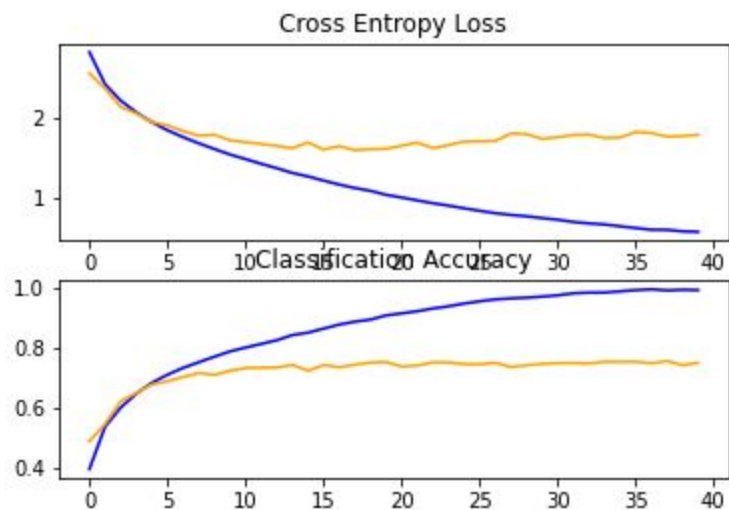
## Dropout Regularization

```
In [2]: runfile('C:/Users/Conspiracing/Downloads/School/
EE104/Project 4/Option 4 Part 1.py', wdir='C:/Users/
Conspiracing/Downloads/School/EE104/Project 4')
Epochs = 40
```

```
Common parameters: gpu, gpu_device, cuda_device
> 79.870
```

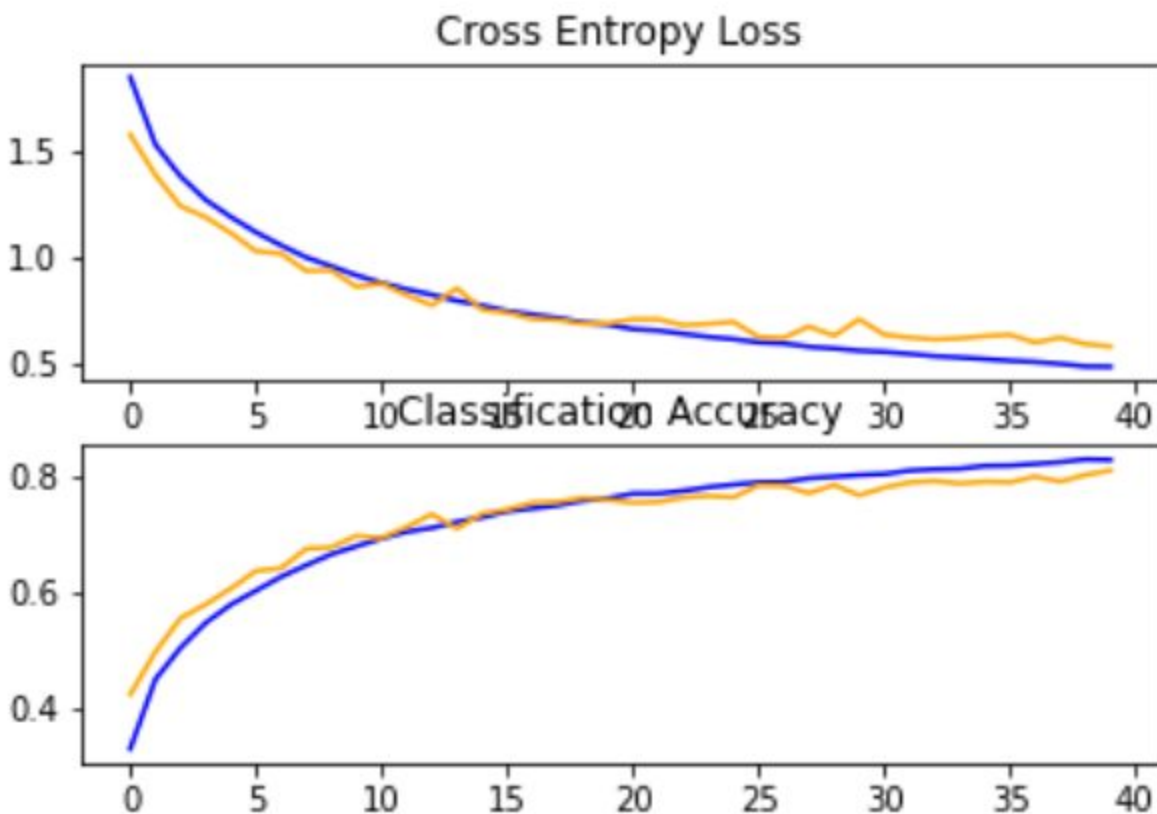
## Weight Decay

```
In [2]: runfile('C:/Users/Conspiracing/Downloads/School/
EE104/Project 4/Option 4 Part 1.py', wdir='C:/Users/
Conspiracing/Downloads/School/EE104/Project 4')
Reloaded modules: tmp3upj7hds
Epochs = 40
> 75.150
```



## Data Augmentation

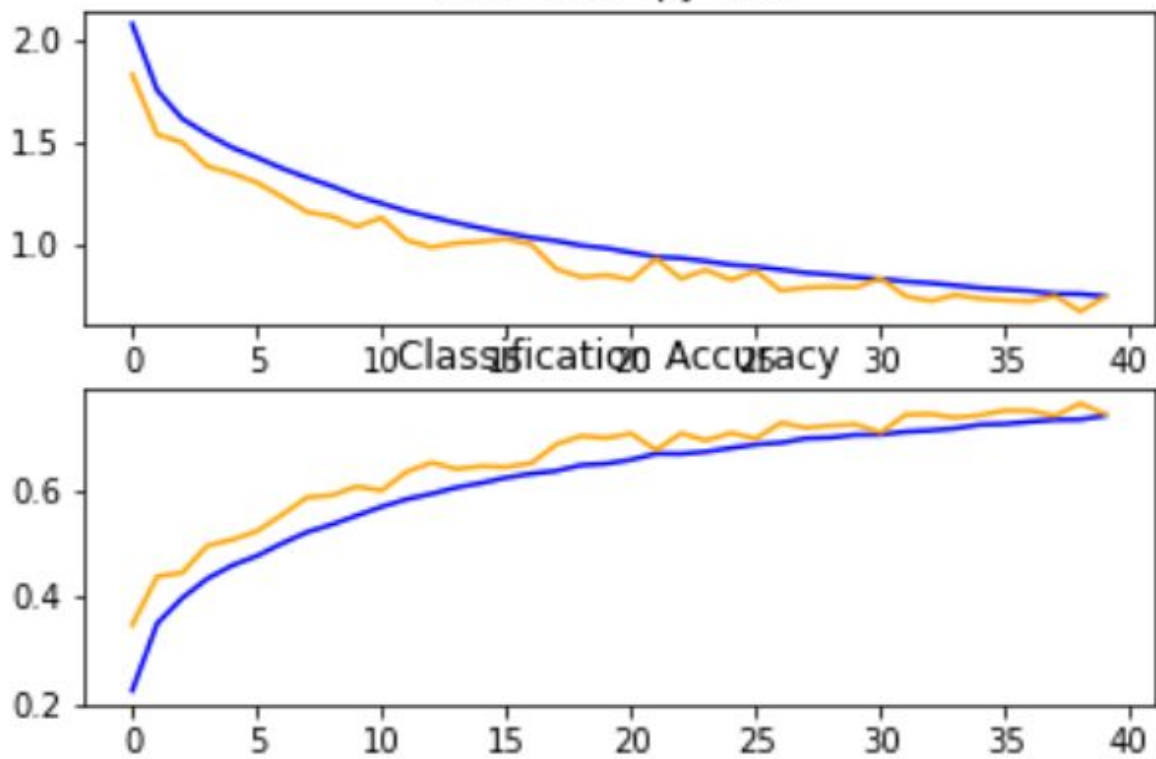
```
In [3]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1 (Ahmad) (Data Augmentation).py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Epochs = 40
> 81.180
```



## Dropout and Data Augmentation

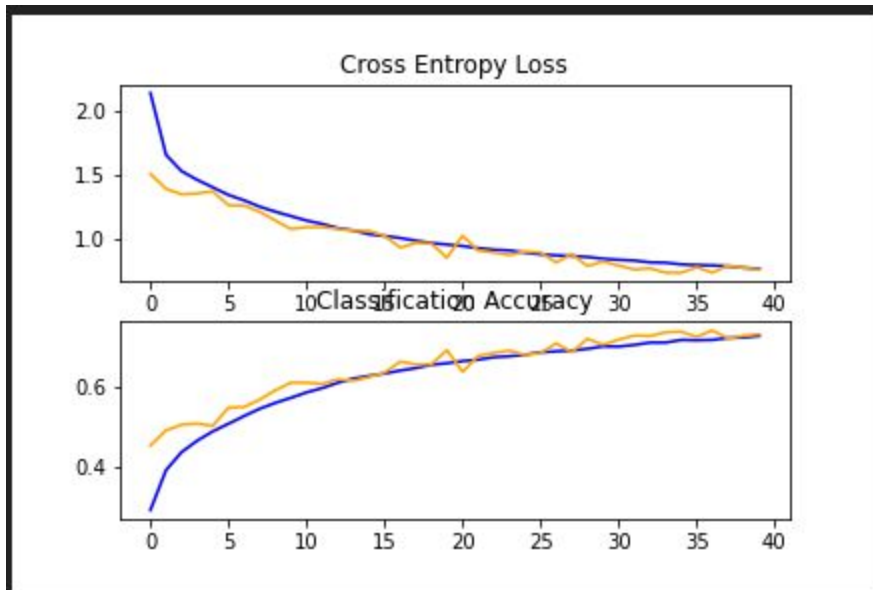
```
In [11]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1 (Ahmad) (Dropout and Data Augmentation).py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Epochs = 40
> 74.100
```

Cross Entropy Loss



## Dropout and Data Augmentation and Batch Normalization

```
In [2]: runfile('C:/Users/Paul/.spyder-py3/EE 104/EE 104 Hws/untitled0.py', wdir='C:/Users/Paul/.spyder-py3/EE 104/EE 104 Hws')
Reloaded modules: tmp0pkjo4_p
Epochs = 40
> 73.630
```



## Final Model Prediction

```
In [5]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1 (Ahmad) (Save Final Model).py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
Epochs = 70

In [6]: runfile('C:/Users/Conspiracing/Downloads/School/EE104/Project 4/Option 4 Part 1 (Ahmad) (Final Model).py', wdir='C:/Users/Conspiracing/Downloads/School/EE104/Project 4')
> 74.990
```