

### Assignment 3 (Progress Report)

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#### 1. *Convolution Neural Network*

Played with a medium deep network.

Read about ReLU vs tanh vs sigmoid.

Tried training the a custom architecture and understood concept of momentum and batch normalization practically.

I am in the process of formulating a good architecture and more testing needs to be done on that.

- **Results**

Below are some sample results obtained so far

```
Accuracy of the network: 58.51 %  
Accuracy of plane: 59.6 %  
Accuracy of car: 74.6 %  
Accuracy of bird: 51.3 %  
Accuracy of cat: 36.2 %  
Accuracy of deer: 34.8 %  
Accuracy of dog: 54.1 %  
Accuracy of frog: 74.8 %  
Accuracy of horse: 67.9 %  
Accuracy of ship: 65.0 %  
Accuracy of truck: 66.8 %
```

#### 2. *Alexnet as feature extractor*

Exploring possible candidates for object recognition dataset.

[House Numbers](#)

[ImageNet](#)

[Coco Dataset](#)

Looking for a suitable top model to mount on Alexnet