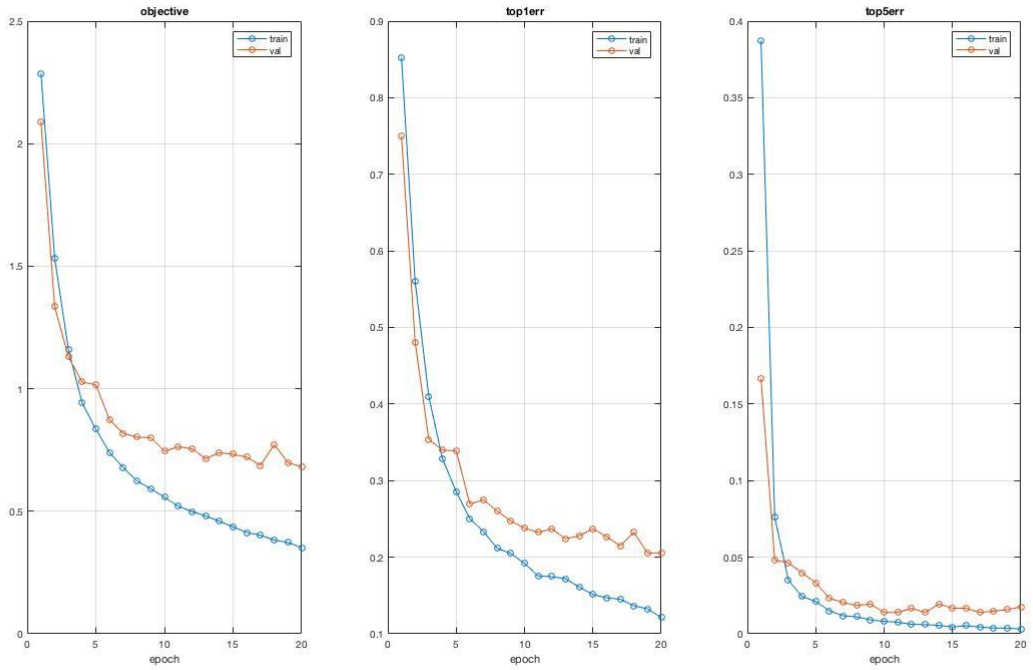
Abhay Doke
Intelligent Visual Computing
Assignment 3

Task A:. Training Graph
Commands:
[net, info] = trainMVShapeClassifier('dataset/train/','matconvnet');
[predicted_labels, test_err] = testMVImageClassifier('dataset/test','matconvnet', net, info)



Task B: Test Dataset Errors

1. Mean View Pooling : 13.5%
2. Max View Pooling : 15.5%

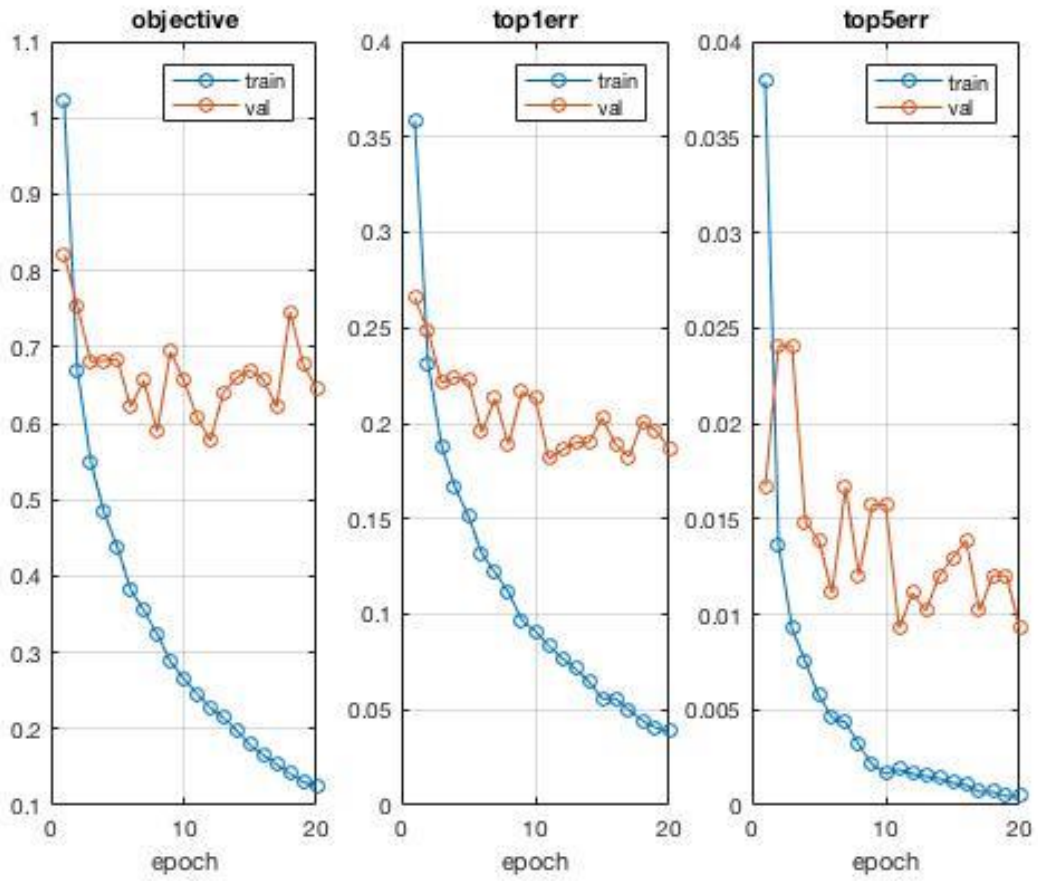
Extra Credit

I added the batch normalization layers after convolutional layers.

```
% --------------------------------------------------------------------
ndim = size(net.layers{l}.weights{1}, 4);
layer = struct('type', 'bnorm', ...
               'weights', {{ones(ndim, 1, 'single'), zeros(ndim, 1, 'single')}}, ...
               'learningRate', [1 1 0.05], ...
               'weightDecay', [0 0]) ;
net.layers{l}.biases = [] ;
net.layers = horzcat(net.layers(1:l), layer, net.layers(l+1:end)) ;
end
```

To turn on batch normalization please set batchNormalization = true on line 150.

```
150 -    batchNormalization = false;
151 -    if batchNormalization
152 -      net = insertBnorm(net, 1) ;
153 -      net = insertBnorm(net, 5) ;
154 -    end
```



Mean View Pooling Error: 15.5%
Max View Pooling Error: 16%