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Error when using classify in caffe

I am using caffe in python to classify. I get code from [here](#). In here, I just use simple code such as

```
plt.rcParams['figure.figsize'] = (10, 10)
plt.rcParams['image.interpolation'] = 'nearest'
plt.rcParams['image.cmap'] = 'gray'
mean_filename='./mean.binaryproto'
proto_data = open(mean_filename, "rb").read()
a = caffe.io.caffe_pb2.BlobProto.FromString(proto_data)
mean = caffe.io.blobproto_to_array(a)[0]
age_net_pretrained='./age_net.caffemodel'
age_net_model_file='./deploy_age.prototxt'
age_net = caffe.Classifier(age_net_model_file, age_net_pretrained,
mean=mean,
```

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```
image_dims=(256, 256))
```

However, I got error such as

```
Traceback (most recent call last):
File "cnn_age_gender_demo.py", line 25, in
image_dims=(256, 256))
File "/home/john/Downloads/caffe/python/caffe/classifier.py", line 34, in init
self.transformer.set_mean(in_, mean)
File "/home/john/Downloads/caffe/python/caffe/io.py", line 255, in set_mean
raise ValueError('Mean shape incompatible with input shape.')
ValueError: Mean shape incompatible with input shape.
```

Could you help me to resolve it? Thanks

[python](#) [python-2.7](#) [caffe](#)

asked Jun 12 '15 at 17:15



[user8430](#)

708 9 36

3 Answers

Let go to line 253-254 in `caffe/python/caffe/io.py` Replace

```
if ms != self.inputs[in_][1:]:
    raise ValueError('Mean shape incompatible with input shape.')
```

By

```
if ms != self.inputs[in_][1:]:
    print(self.inputs[in_])
    in_shape = self.inputs[in_][1:]
    m_min, m_max = mean.min(), mean.max()
    normal_mean = (mean - m_min) / (m_max - m_min)
    mean =
    resize_image(normal_mean.transpose((1,2,0)), in_shape[1:]).transpose((2,0,1)) *
    (m_max - m_min) + m_min
    #raise ValueError('Mean shape incompatible with input shape.')
```

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answered Jun 12 '15 at 17:31



user8264

723 7 19

I was having the same problem, based in the imagenet web demo I modified the script using this way to load the mean file in line 95

```
mean = np.load(args.mean_file).mean(1).mean(1)
```

answered Sep 2 '16 at 18:11



Sebastian Garcia
Valencia

11 1

I am pretty scared to rebuild the code as caffe installation did not come easy for me. But to fix, the solution to resize mean require in_shape (user8264's response), which is set internally in caffe/classifier.py

Anyway, I debugged and found the value for in_shape = (3, 227, 227) for age_net.caffemodel

So the model used for age and gender prediction would the following change:

```
age_net_pretrained='./age_net.caffemodel'  
age_net_model_file='./deploy_age.prototxt'  
age_net = caffe.Classifier(age_net_model_file, age_net_pretrained,  
                           mean=mean,  
                           channel_swap=(2,1,0),  
                           raw_scale=255,  
                           image_dims=(227, 227))
```

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```
m_min, m_max = mean.min(), mean.max()
normal_mean = (mean - m_min) / (m_max - m_min)
in_shape=(227, 227)
mean = caffe.io.resize_image(normal_mean.transpose((1,2,0)), in_shape)
        .transpose((2,0,1)) * (m_max - m_min) + m_min
```

This will get rid of "ValueError: Mean shape incompatible with input shape". But I am not sure about the accuracy though. Apparently, for me skipping mean parameter gave better age prediction :)

answered Jul 22 at 12:31



Somum

1,011 10 8