Custom Object Detector -

ankitrai 2016-10-16 09:10:22 UTC #1

Hi @Adrian and others,

I am trying to build an object detector with 100 images (annotated as bounding box for object). My bounding boxes vary with different images in positive samples and when i crop the roi, i resize them to fix dimension say (32,32). And, in case of negative samples I use the window dimension (92,32)when applying patch2D.

However, when I fit the linear SVM on data, labels it throws me error -

ValueError: setting an array element with a sequence.

My understanding says that it might be occurring because it's not able to make 2-d array using data array.

Could you let me know how to resolve this issue?

Thanks in advance!

Adrian 2016-10-16 11:52:20 UTC #2

> ankitrai:
>
> i resize them to fix dimension say (32,32). And, in case of negative samples I use the window dimension (92,32)when applying patch2D.

After extracting your patches are you extracting features from the images? Or using the raw pixel intensities?

In either case, you need to have the *same* feature dimensionality for *all* examples, including positives and negatives.

Right now you have 32 x 32 = 1024-dim features for your positive examples but 92 x 32 = 2944-dim for negative examples. You cannot do this. Either all examples (both positive and negative) need to be 32 x 32 or 92 x 32. Again, I'm making the assumption that you're using raw pixel intensities, but the same is true for feature vectors as well. All feature vectors need to have the same dimensionality.

---

ankitrai 2016-10-16 17:01:41 UTC #3

Thanks @Adrian for your quick response. I will make the dimension for negative samples same as positive samples and rerun the analysis. However, I am extracting HOG features from negative samples too.

Adrian 2016-10-17 17:38:49 UTC #4

It's totally normal to be extracting HOG features from the positive and negative examples. However, the output feature vector size of the HOG descriptor is dependent on its input size. Thus, the input sizes should be the *same*

for all images (both positive and negative samples).
