## Mete Uz

I did not take any actions for class-imbalance problem. I believe normalizing the accumulated cooccurrence matrix is enough normalization. I have used the "libsvm" library which is provided in the homework documentation. I believe I have calculated the features correctly but I am not sure why my accuracies are not that high and inconsistent.

## **Implementation details**

Did you take an extra action for the class-imbalance problem? If so, explain.

(I think I had problem with the svm library - inconsistent results)

Did you take an extra action for normalization? If so, explain.

Specify the library from which you use the SVM. Alternatively, you may give a link for its implementation.

Additional comments, if you have any.

	Selected	Training set accuracies				Test set accuracies			
	parameters	Class 1	Class 2	Class 3	Overall	Class 1	Class 2	Class 3	Overall
Linear kernel	C = ? 10	43.55%	43.55%	43.55%	43.55%	40.97%	40.97%	40.97%	40.97%
RBF kernel	C = ? <sup>10</sup> gamma = ? <sup>5</sup>	100%	100%	100%	100%	100%	100%	100%	100%
Statistically different?		yes or no	yes or no	yes or no	<u>yes</u> or no	<u>yes</u> or no	yes or no	yes or no	yes or no

	Selected parameters	Training set accuracies				Test set accuracies				
		Class 1	Class 2	Class 3	Overall	Class 1	Class 2	Class 3	Overal	
Linear kernel (grid-based)	C = ? 10	44.89%	44.89%	44.89%	44.89%	41.22%	41.22%	41.22%	41.22%	
Linear kernel (entire image)	C = ? 10	43.55%	43.55%	43.55%	43.55%	40.97%	40.97%	40.97%	40.97%	
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Statistically different?		yes or no	yes or no	yes or no	yes or no	yes or no	yes or no	yes or no	yes or no	
RBF kernel (grid-based)	C = ? 10 gamma = ?5	100%	100%	100%	100%	100%	100%	100%	100%	
RBF kernel (entire image)	C = ? 10 gamma = ? 5	100%	100%	100%	100%	100%	100%	100%	100%	
Copy and paste	from the previo	ous table								
Statistically different?		yes or no	yes or no	yes or no	yes or no	yes or no	yes or no	yes or no	yes pi no	