Additional Preprocessing + Resize to 100 X 100 Dimension	KNN	Decision Tree	Naïve Bayes	SVM
Histogram equalization + Resize to 100 X 100 Dimension	0.5	0.25	0.25	0.4063
Histogram equalization + imadjust + Resize to 100 X 100 Dimension	0.5	0.25	0.25	0.3750
Imadjust + Resize to 100 X 100 Dimension	0.3750	0.2813	0.25	0.2813
Resize to 100 X 100 Dimension	0.3750	0.3438	0.2188	0.25
Resize to 50x50 + Histogram	0.5313	0.2813		0.4013
Resize to 70x70 + Histogram	0.5313	0.1875		0.3750
Resize to 30X30 + Histogram	0.4688	0.2500		0.3125
Resize to 40x40 + Histogram	0.5313	0.2188	0.25	0.3438
Resize to 45x45+Histogram	0.5313	0.3125		0.3720
Resize to 60x60 + Histogram	0.5313	0.2188		0.4063
Histogram + 50x50 resize + images from Caltech 101	0.5625	0.2813		
Histogram + 50x50 resize + images from Caltech 101 + normalizing by dividing by 256	0.5625	0.2813		

	Algorithm	Overall Accuracy	Average Accuracy
Cross Validation – Entire Caltech 101 + Our Images	Neural Networks	0.255	0.98
Cross Validation – Entire Caltech 101 + Our Images	Logistic Regression	0.39	0.987
Evaluation random 80% 20%	Neural Networks	0.238	0.984
Evaluation random 80% 20%	Logistic Regression	0.378	0.987
Evaluation random 80% 20%	Decision Forest	0.32	0.98
Evaluation from our dataset	KNN	0.3438	
Evaluation from our dataset	Decision Tree	0.25	

The Dataset with 9 class labels.

Results from Cross Validation

Algorithm	Overall accuracy	Average accuracy	Micro avg precision	Macro avg precision	Micro avg Recall	Macro – average Recall
Logistic Regression	0.745909	0.943535	0.745909	0.453686	0.745909	0.372941
Neural Network	0.6296	0.917695	0.62963	NaN	0.62963	0.19753

Train with 80%, Testing with 20%

Algorithm	Overall accuracy	Average accuracy	Micro avg precision	Macro avg precision	Micro avg Recall	Macro – average Recall
Logistic Regression	0.7672	0.9482	0.7672	0.4075	0.7672	0.3433
Neural Network	0.713362	0.936303	0.713362	NaN	0.713362	0.207095
Decision Forest	0.760776	0.946839	0.760776	NaN	0.760776	0.318934
KNN	0.7888					
Support Vector Machines	Didn't work – No Convergence					
Naïve Bayes	0.6784					