## Image Classification of Tradition Indian Clothing

Kelly Butler



Lehenga (the skirt) with a blouse and a dupatta



Men's kurta



Women's mojaris



Saree

	Class Label	Number of Images
	Women's kurta	11694
	Sarees	10791
Data Erom Kagglo	Blouses	9174
Data From Kaggle	Leggings and S	alwars 7787
	Men's kurtas	6951
	Dupattas	6587
	Nehru jackets	6491
	Lehenga	5753
91166 training imag	es 7500 valid	ation images
	Petticoats	4 4441
7500	) test imagests Palazzos	4145
	Palazzos	3375
	Women's moja	ris 3228
	Sherwanis	2992
	Men's mojaris	2546

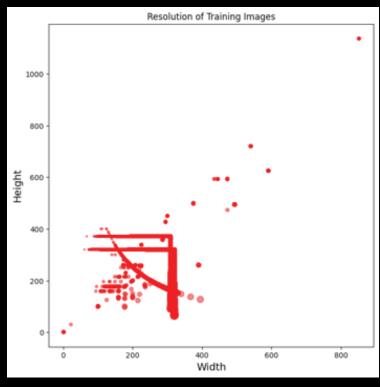


Figure 1 Image resolution in the training set

Training data

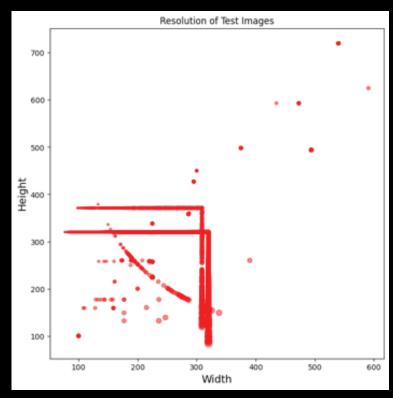
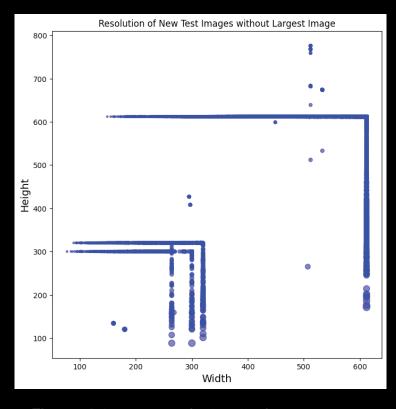


Figure 3. Image resolution in the test set

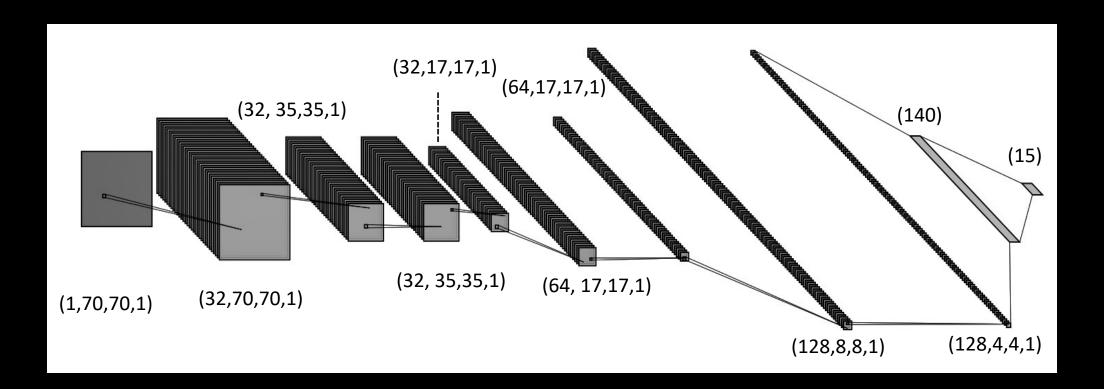
Original test data



**-igure 4**. Image resolution in the new test set

New test data

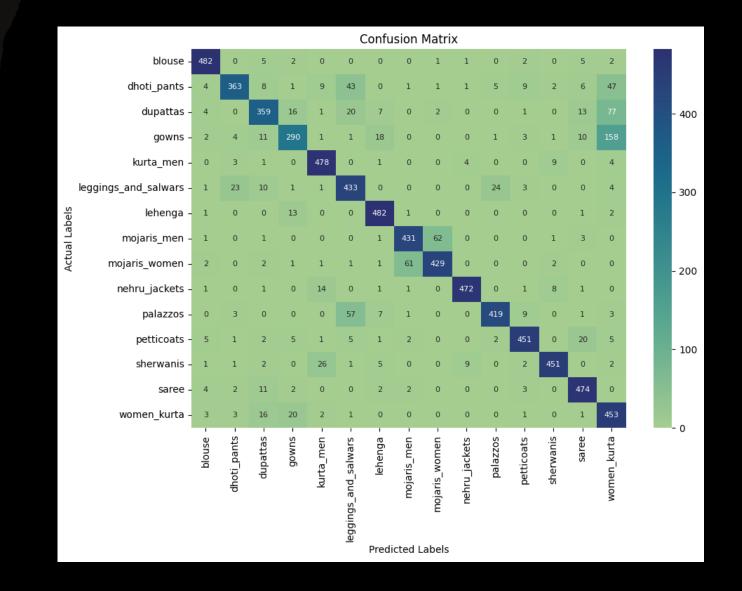
## Image sizes



## Keras Model

## Metrics

	Accuracy	Precision	Recall	F1 Score
Original test dataset	86.23 %	85.98 %	84.68 %	84.61 %
New test dataset	63.91 %	68.59 %	63.91 %	63.59 %



Confusion Matrix for New Test Data																	
blouse -	414	1	15	2	1	3	22	4	3	5	4	0	8	14	4		
dhoti_pants -	0	191	14	1	37	164	4	0	0	2	20	1		3	4		- 400
dupattas -	2	1	148	9	11	0	195	1	4	1	7	3	23	20			400
gowns -	0	1	7	138	1	0	235	3	1	0	9	2	12	3			
kurta_men -	0	1	4	4	389	0	5	1	1	35	3	0		3	2		
ings_and_salwars -	1		28	8	0	348	21	2	2	0	9	2	7	9	16		- 300
lehenga -	1	0	6	20	0	0	458	0	0	0	5	0	2	5	3		
mojaris_men -	0	7	4	1	0	0	12	387	69	1	1	1	11	6	0		
mojaris_women -	- 30	3	7	1	0	1	7	74	356	0	1	2	7	10	1		- 200
nehru_jackets -	1	0	1	1	31	0	2	1	0	441	0	0	16	2	4		
palazzos -	0	1	5	4	0	152	14	0	0	0	293	8	4	3	16		
petticoats -	- 3	2	0	2	0	16	9	0	0	0	121	339	0	4	4		- 100
sherwanis -	0	21	1	0		2	3	0	0	30	1	0	348	3	4		
saree -	0	0	9	1	0	0	233	4	5	1	7	0	26	211	3		
women_kurta -	0	0	2	4	21	1	70	0	1	10	10	1	39	9	332		- 0
	- plouse -	dhoti_pants -	dupattas -	- suwob	kurta_men -	leggings_and_salwars -	lehenga -	mojaris_men -	mojaris_women -	nehru jackets -	palazzos –	petticoats -	sherwanis -	saree -	women_kurta -		- U
Predicted Labels																	

Training set: Women's kurta





Test set:
Gown
Predicted label:
Women's kurta



Training set: Women's kurta



Test set: label Dupatta Predicted: Women's kurta



Women's kurta



Sherwani



Blouse



Gown



Dupatta



Palazzos



Salwar with dupatta



Dhoti pants



