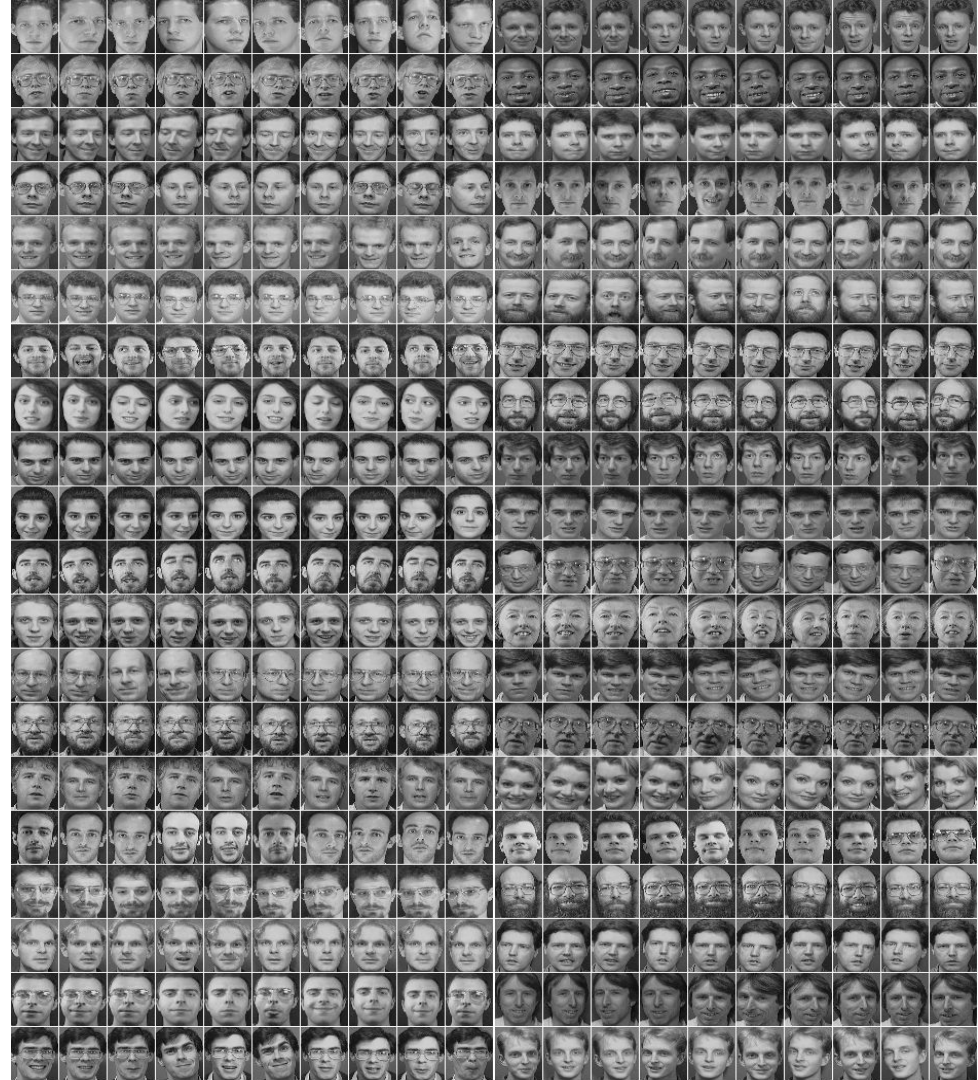


# WHY SO SERIOUS?

**Nilufer Polat**

# DATASET

Olivetti Faces



# LABELING: SMILE?

×

smile
no smile



×

smile
no smile



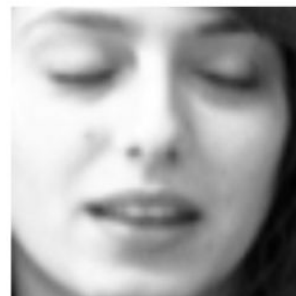
×

smile
no smile

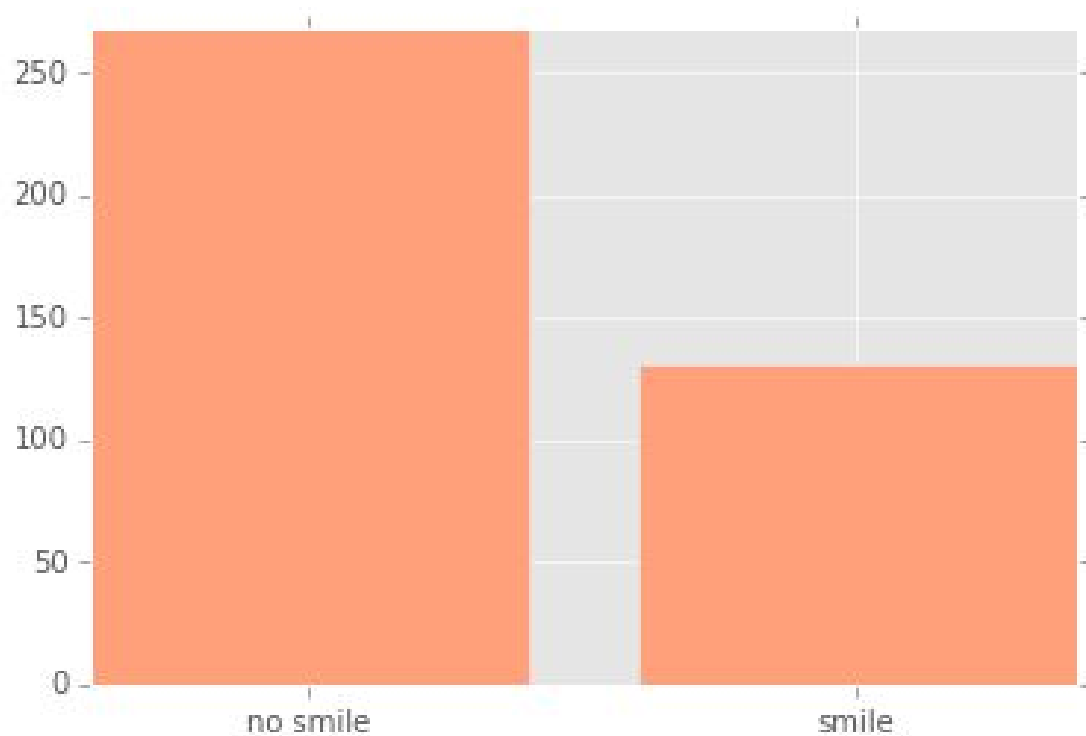


×

smile
no smile



# LABELING: SMILE?



# CLASSIFIER: SUPPORT VECTOR MACHINES

Accuracy on training set:

1.0

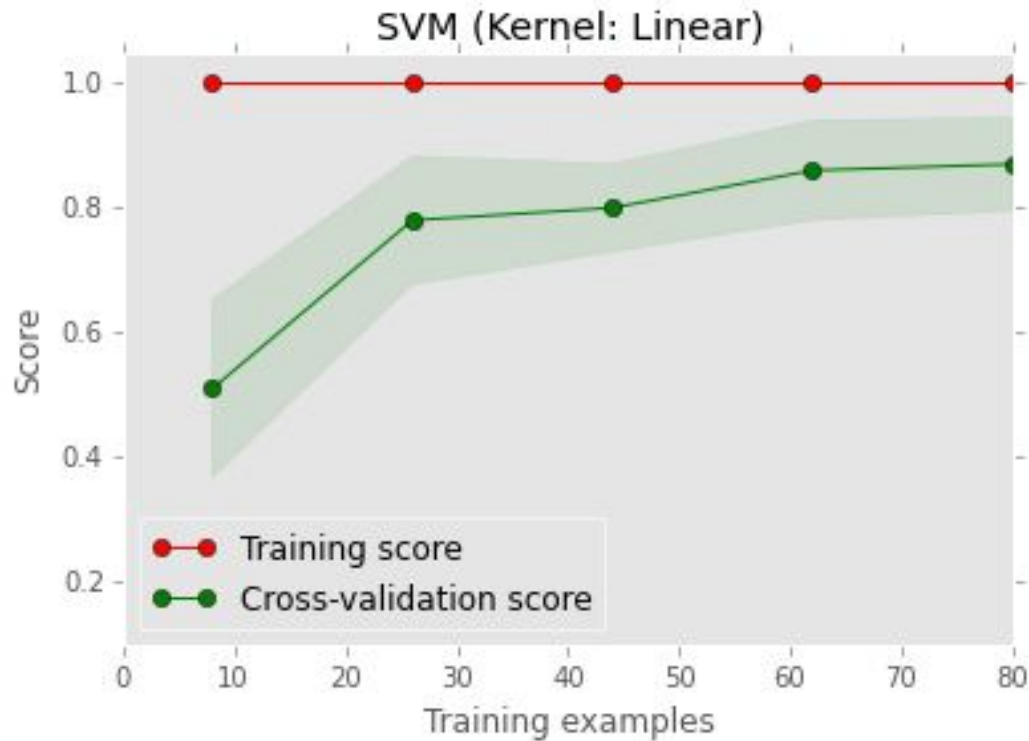
Accuracy on testing set:

0.85

Classification Report:

	precision	recall	f1-score	support
0	0.86	0.90	0.88	62
1	0.83	0.76	0.79	38
avg / total	0.85	0.85	0.85	100

# LEARNING CURVE



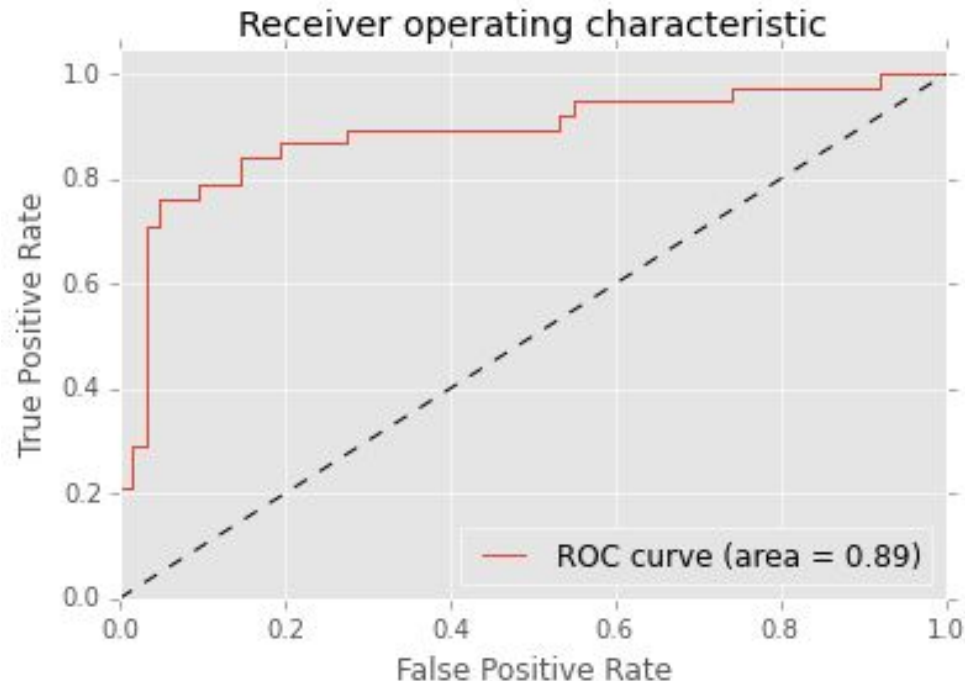
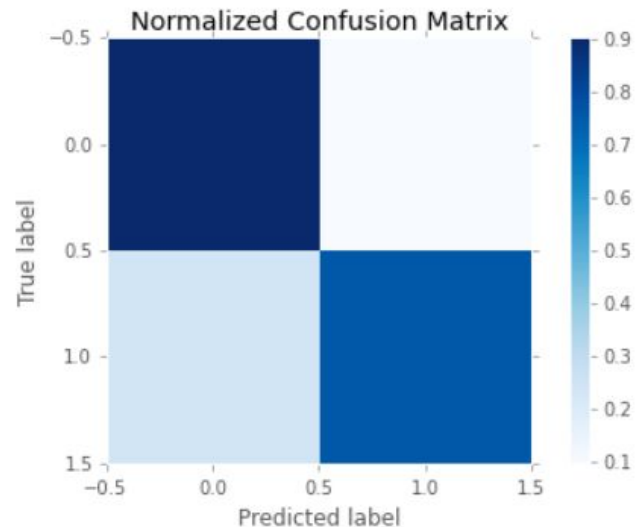
# CONFUSION MATRIX & ROC CURVE

Confusion matrix, without normalization

```
[[56  6]
 [ 9 29]]
```

Normalized confusion matrix

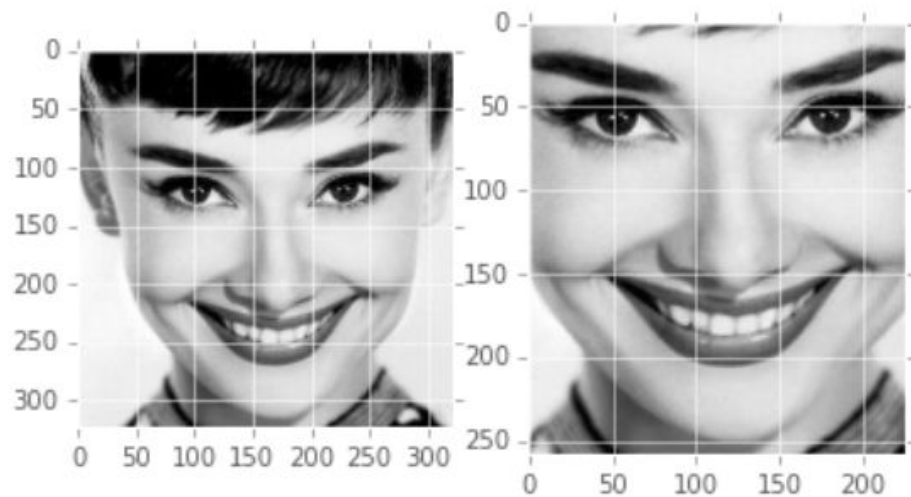
```
[[ 0.9  0.1 ]
 [ 0.24 0.76]]
```

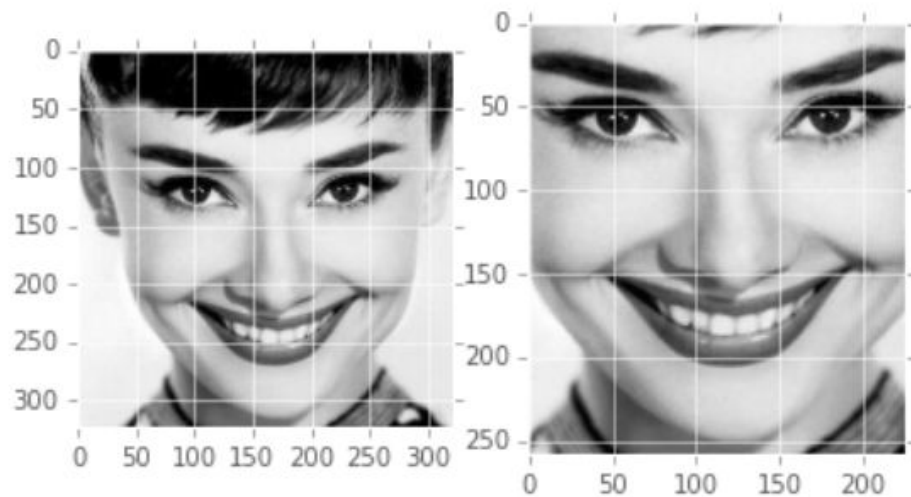


# FACE DETECTION & MODEL VALIDATION









Keep Smiling :)



Why So Serious?



Keep Smiling :)



Why So Serious?



Why So Serious?



Keep Smiling :)



Keep Smiling :)



Why So Serious?



Keep Smiling :)



Keep Smiling :)



Why So Serious?



Keep Smiling :)



Why So Serious?



Keep Smiling :)



Keep Smiling :)



Why So Serious?

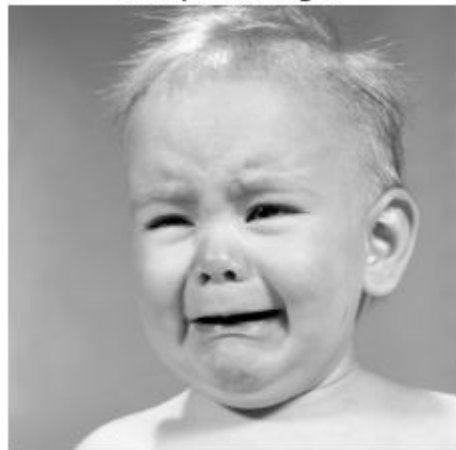


Keep Smiling :)

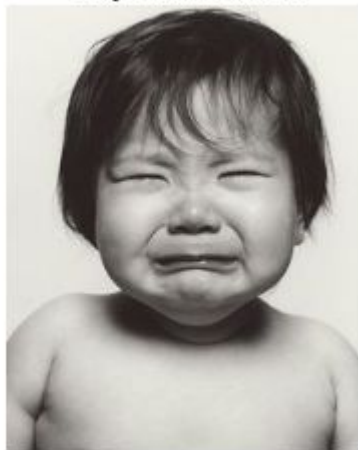




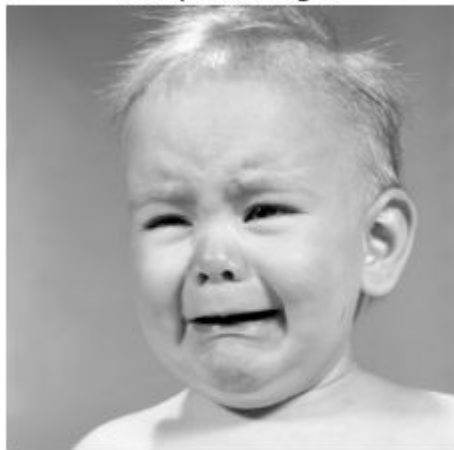
Keep Smiling :)



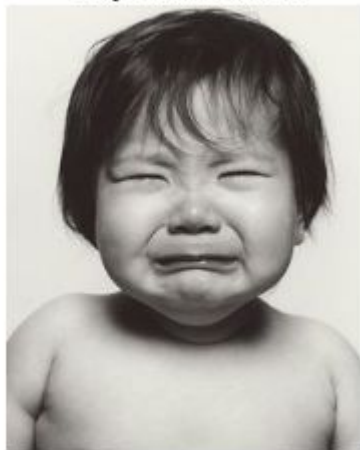
Why So Serious?



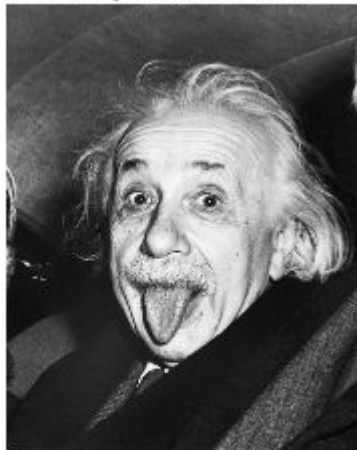
Keep Smiling :)



Why So Serious?



Why So Serious?



Why So Serious?



Keep Smiling :)



Keep Smiling :)



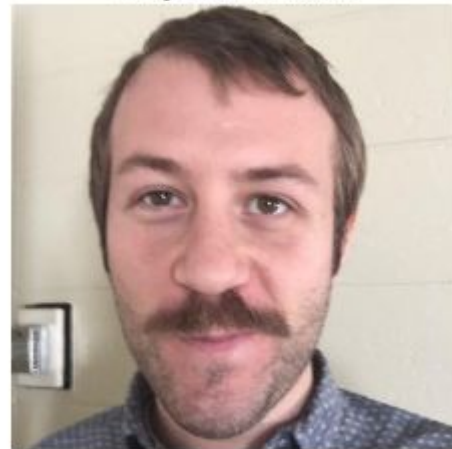
Keep Smiling :)



Keep Smiling :)



Why So Serious?



IS JO(H)N SMILING?

Why So Serious?



Why So Serious?



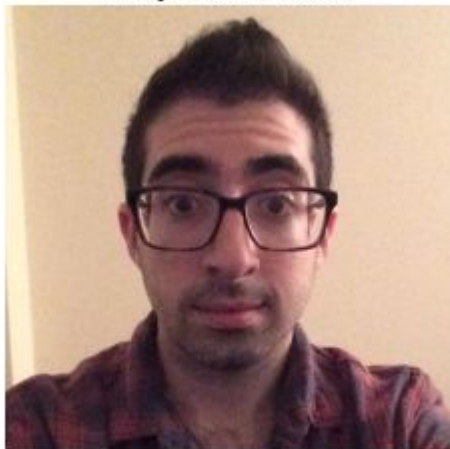
Keep Smiling :)



Why So Serious?



Why So Serious?



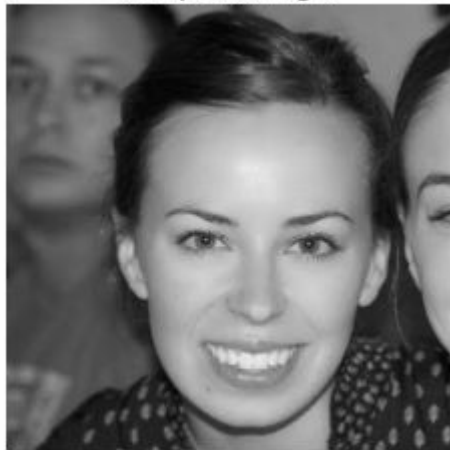
Keep Smiling :)



Keep Smiling :)



Keep Smiling :)



Keep Smiling :)



Keep Smiling :)



Keep Smiling :)



Keep Smiling :)





THANK YOU