

Classification

A task to predict (values) Classes

- Digits
- Faces
- Nodes
- Fruits

Binary Classifier:

Task to predict if a given input is a class (1) or not (0)

Basically an if statement on a class
Do, predict() would give true or false

- Performance measures

Cross Validation
(Oh boy)

Split the data into multiple folds and then train the model on every fold except one, repeat this ~~at~~ for all folds.

Then you will have an array of accuracies for each fold.

ex: [0.91, 0.88, 0.99]

Pseudo-Code - Python

Given K

new_Data = Data / K # Split into folds

for each fold in new_Data:

~~acc = 0~~ # Split training and testing

* data - train = new_Data - fold

* data - test = fold

acc, append (Model.fit(^{*}data, ^{*}data).accuracy)

print(acc) # [0.91, 0.88, 0.99]

In (~~cross validation~~) classification acc is not the prefered performance measure, specially with skewed datasets (some classes are much more frequent than others)

In some cases when a class occupies 90% of the data, the model will just always guess that class and get an acc. of 90%.