accuracy_score

sklearn.metrics.accuracy_score(*y_true*, *y_pred*, *, *normalize=True*, *sample_weight=None*)** [source]

Accuracy classification score.

In multilabel classification, this function computes subset accuracy: the set of labels predicted for a sample must *exactly* match the corresponding set of labels in y_true.

Read more in the User Guide.

Parameters:

y_true : ***1d array-like, or label indicator array / sparse matrix***

Ground truth (correct) labels.

y_pred : ***1d array-like, or label indicator array / sparse matrix***

Predicted labels, as returned by a classifier.

normalize : ***bool, default=True***

If `False`, return the number of correctly classified samples. Otherwise, return the fraction of correctly classified samples.

sample_weight : ***array-like of shape (n_samples,), default=None***

Sample weights.

Returns:

score : ***float or int***

If `normalize == True`, return the fraction of correctly classified samples (float), else returns the number of correctly classified samples (int).

The best performance is 1 with `normalize == True` and the number of samples with `normalize == False`.

See also

`balanced_accuracy_score`
Compute the balanced accuracy to deal with imbalanced datasets.

`jaccard_score`
Compute the Jaccard similarity coefficient score.

`hamming_loss`
Compute the average Hamming loss or Hamming distance between two sets of samples.

`zero_one_loss`
Compute the Zero-one classification loss. By default, the function will return the percentage of imperfectly predicted subsets.

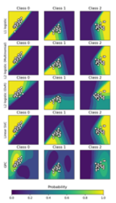
Examples

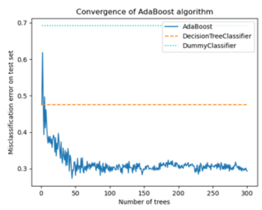
```
>>> from sklearn.metrics import accuracy_score
>>> y_pred = [0, 2, 1, 3]
>>> y_true = [0, 1, 2, 3]
>>> accuracy_score(y_true, y_pred)
0.5
>>> accuracy_score(y_true, y_pred, normalize=False)
2.0
```

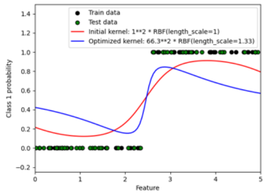
In the multilabel case with binary label indicators:

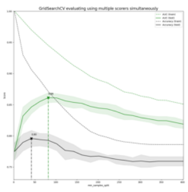
```
>>> import numpy as np
>>> accuracy_score(np.array([[0, 1], [1, 1]]), np.ones((2, 2)))
0.5
```

Gallery examples







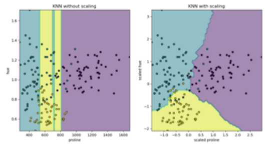


Plot classification probability

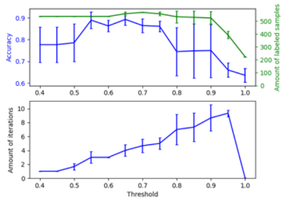
Multi-class AdaBoosted Decision Trees

Probabilistic predictions with Gaussian process classification (GPC)

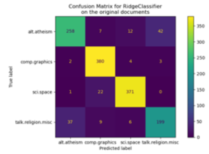
Demonstration of multi-metric evaluation on cross_val_score and GridSearchCV



Importance of



Effect of varying



Classification of text