## ML\_Core/ Interfaces/ IClassify

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## **IMPORTS**

ML\_Core | ML\_Core.Types |

### **DESCRIPTIONS**

## **MODULE** IClassify

**IClassify** 

Interface definition for Classification. Actual implementation modules will probably take parameters.

#### Children

- 1. GetModel: Calculate the model to fit the observation data to the observed classes
- 2. Classify: Classify the observations using a model
- 3. Report: Report the confusion matrix for the classifier and training data

## **FUNCTION** GetModel

IClassify \

# DATASET(Types.Layout\_Model) GetModel (DATASET(Types.NumericField) observations, DATASET(Types.DiscreteField) classifications)

Calculate the model to fit the observation data to the observed classes.

**PARAMETER** observations the observed explanatory values

PARAMETER <u>classifications</u> the observed classification used to build the model

**RETURN** the encoded model

## **FUNCTION** Classify

IClassify \

```
DATASET(Types.Classify_Result) Classify

(DATASET(Types.Layout_Model) model,
DATASET(Types.NumericField) new_observations)
```

Classify the observations using a model.

**PARAMETER** model The model, which must be produced by a corresponding getModel function.

PARAMETER new\_observations observations to be classified

**RETURN** Classification with a confidence value

## **FUNCTION** Report

IClassify \

```
DATASET(Types.Confusion_Detail) Report

(DATASET(Types.Layout_Model) model,
DATASET(Types.NumericField) observations,
DATASET(Types.DiscreteField) classifications)
```

Report the confusion matrix for the classifier and training data.

PARAMETER model the encoded model

PARAMETER <u>observations</u> the explanatory values.

PARAMETER classifications the classifications associated with the observations

**RETURN** the confusion matrix showing correct and incorrect results