BinomialLogisticRegression

Go Up

IMPORTS

LogisticRegression | LogisticRegression.Constants | ML_Core.Interfaces | ML_Core.Types |

DESCRIPTIONS

MODULE BinomialLogisticRegression

	BinomialLogisticRegression
	`(UNSIGNED max_iter=200, REAL8 epsilon=Constants.default_epsilon, REAL8 ridge=Constants.default_ridge)`

Binomial logistic regression using iteratively re-weighted least squares.

PARAMETER **max_iter** maximum number of iterations to try

PARAMETER **epsilon** the minimum change in the Beta value estimate to continue

PARAMETER **ridge** a value to populate a diagonal matrix that is added to a matrix help assure that the matrix is invertible.

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

BinomialLogisticRegression \

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 **classifications** the observed classification used to build the model

RETURN the encoded model

OVERRIDE True

FUNCTION Classify

BinomialLogisticRegression \

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

OVERRIDE True

FUNCTION Report

BinomialLogisticRegression \

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 **observations** the explanatory values.

PARAMETER **classifications** the classifications associated with the observations

RETURN the confusion matrix showing correct and incorrect results

OVERRIDE True
