Linear Regression Documentation

Release 0.01

Tommy Myrvik, Kristian Tuv

Sep 25, 2018

CONTENTS:

class cls_reg.**LinReg**(*x*, *y*, *z*, *deg*)

MSE(*z*, *zpred*)
Finds the mean squared error of the real data and predicted values :param z: real data :param zpred: predicted data :type z: array :type zpred: array :return: The mean squared error :rtype: float

R2(*z*, *zpred*)
Finds the R2 error of the real data and predicted values :param z: real data :param zpred: predicted data :type z: array :type zpred: array :return: The mean squared error :rtype: float

__init__(*x*, *y*, *z*, *deg*)

Parameters

- **XY** (*array*) – A matrix of polynomialvalues
- **z** (*array*) – The values we are trying to fit
- **deg** (*int*) – The degree of polynomial we try to fit the data

__weakref__
list of weak references to the object (if defined)

bootstrap(*nBoots*)
I dont fucking know

kfold(*nfolds*)
I dont fucking know

lasso(*lamb*, *XY=None*, *z=None*)
Performes a Lasso regression linear fit

Parameters

- **XY** (*array*) – A matrix of polynomialvalues
- **z** (*array*) – The values we are trying to fit
- **lamb** (*float, int*) – The regularization constant

Returns The coefficient of the fitted polynomial

Return type array

ols(*XY=None*, *z=None*)
Performes a Ordinary least squares linear fit

Parameters

- **XY** (*array*) – A matrix of polynomialvalues
- **z** (*array*) – The values we are trying to fit

Returns The coefficient of the fitted polynomial

Return type array

ridge(*lamb*, *XY=None*, *z=None*)
Performes a Ridge regression linear fit

Parameters

- **XY** (*array*) – A matrix of polynomialvalues
- **z** (*array*) – The values we are trying to fit
- **lamb** (*float, int*) – The regularization constant

Returns The coefficient of the fitted polynomial

Return type array

CHAPTER

ONE

INDICES AND TABLES

- genindex
- modindex
- search

PYTHON MODULE INDEX

C

INDEX

Symbols

B

C

K

L

M

O

R