

**Example of Regression Analysis Using the Boston Housing Data Set (../Data/housing-dscr.txt).**

```
In [1]: from sklearn.cross_validation import KFold
        from sklearn.linear_model import LinearRegression, Lasso, Ridge, ElasticNet, SGDRegressor
        import numpy as np
        import pylab as pl
```

```
In [ ]: from sklearn.datasets import load_boston
        boston = load_boston()
```

```
In [79]: print boston.feature_names
```

```
['CRIM' 'ZN' 'INDUS' 'CHAS' 'NOX' 'RM' 'AGE' 'DIS' 'RAD' 'TAX' 'PTRATIO' 'B' 'LSTAT']
```

```
In [80]: print boston.data.shape
        print boston.target.shape
```

```
(506L, 13L)
(506L,)
```

```
In [21]: np.set_printoptions(precision=2, linewidth=120, suppress=True, edgeitems=4)
```

```
In [23]: print boston.data
```

```
[[ 0.01 18.    2.31  0.    ..., 296.    15.3  396.9  4.98]
 [ 0.03  0.    7.07  0.    ..., 242.    17.8  396.9  9.14]
 [ 0.03  0.    7.07  0.    ..., 242.    17.8  392.83  4.03]
 [ 0.03  0.    2.18  0.    ..., 222.    18.7  394.63  2.94]
 ...,
 [ 0.05  0.   11.93  0.    ..., 273.    21.   396.9  9.08]
 [ 0.06  0.   11.93  0.    ..., 273.    21.   396.9  5.64]
 [ 0.11  0.   11.93  0.    ..., 273.    21.   393.45  6.48]
 [ 0.05  0.   11.93  0.    ..., 273.    21.   396.9  7.88]]
```