Parâmetros:

'hidden\_layer\_sizes': hidden\_layer,

'activation': ['tanh', 'relu'],

'solver': ['sgd', 'adam'],

'alpha': [0.0001, 0.05],

'batch\_size':[50],

'max\_iter':[1000]

Lag 1

Best parameters found:

{'activation': 'tanh', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (5, 6, 9), 'max\_iter': 1000, 'solver': 'adam'}

tempo decorrido:681.8744163513184

lag 2

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (8, 9, 2), 'max\_iter': 1000, 'solver': 'adam'}

Lag 3

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (5, 2, 1), 'max\_iter': 1000, 'solver': 'adam'}

Lag 4

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (6, 3, 2), 'max\_iter': 1000, 'solver': 'adam'}

Lag 5

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (5, 9, 3), 'max\_iter': 1000, 'solver': 'adam'}

Lag 6

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (5, 8, 6), 'max\_iter': 1000, 'solver': 'adam'}

Lag 7

Best parameters found:

{'activation': 'tanh', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (9, 6, 8), 'max\_iter': 1000, 'solver': 'adam'}

Lag 8

Best parameters found:

{'activation': 'relu', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (7, 5, 8), 'max\_iter': 1000, 'solver': 'adam'}

Lag 9

Best parameters found:

{'activation': 'relu', 'alpha': 0.0001, 'batch\_size': 50, 'hidden\_layer\_sizes': (7, 9, 8), 'max\_iter': 1000, 'solver': 'adam'}

Lag 10

Best parameters found:

{'activation': 'relu', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (9, 6, 9), 'max\_iter': 1000, 'solver': 'adam'}

Lag 11

Best parameters found:

{'activation': 'relu', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (6, 4, 7), 'max\_iter': 1000, 'solver': 'adam'}

Lag 12

Best parameters found:

{'activation': 'relu', 'alpha': 0.05, 'batch\_size': 50, 'hidden\_layer\_sizes': (9, 4, 6), 'max\_iter': 1000, 'solver': 'adam'}

SVM

Lag 1

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

Criando Previsões

Calculando Pearson

r2:(0.48356861639700904, 3.640211210719233e-06)

Support vector ratio: 0.992

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:3.1678547859191895

Lag 2

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 2.9s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 3.0s finished

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

Criando Previsões

Calculando Pearson

r2:(0.35394666679559017, 0.0011054884929957642)

Support vector ratio: 0.500

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 0.001, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:6.462480783462524

Lag 3

[Parallel(n\_jobs=6)]: Done 2938 tasks | elapsed: 3.0s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 3.1s finished

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

Criando Previsões

Calculando Pearson

r2:(0.4450696478281167, 3.13913163789916e-05)

Support vector ratio: 0.333

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:10.110720157623291

Lag 4

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 3.4s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 3.4s finished

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.2s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.3s finished

Criando Previsões

Calculando Pearson

r2:(0.5938664593060747, 6.383540731096099e-09)

Support vector ratio: 0.249

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:14.630629062652588

Lag 5

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.2s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.6s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.7s finished

Criando Previsões

Calculando Pearson

r2:(0.3206933210496318, 0.003958209135558604)

Support vector ratio: 0.198

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:19.67413592338562

Lag 6

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.2s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.5s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.6s finished

Criando Previsões

Calculando Pearson

r2:(0.2681606638040126, 0.0176086299445831)

Support vector ratio: 0.166

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:24.620802640914917

Lag 7

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.4s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.5s finished

Criando Previsões

Calculando Pearson

r2:(0.16632964309885737, 0.14824560869002226)

Support vector ratio: 0.143

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:29.424909114837646

Lag 8

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.8s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.9s finished

Criando Previsões

Calculando Pearson

r2:(0.2067791817241455, 0.07309984059108734)

Support vector ratio: 0.125

Best parameters set found on development set:

{'C': 0.501, 'epsilon': 0.001, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:34.6190128326416

Lag 9

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.2s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 5.7s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 5.7s finished

Criando Previsões

Calculando Pearson

r2:(0.1060209018351519, 0.365305681501101)

Support vector ratio: 0.111

Best parameters set found on development set:

{'C': 0.001, 'epsilon': 0.001, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:40.72738075256348

Lag 10

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.2s

[Parallel(n\_jobs=6)]: Done 2420 tasks | elapsed: 4.4s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 5.2s finished

Criando Previsões

Calculando Pearson

r2:(-0.016207706795892146, 0.8909839353226316)

Support vector ratio: 0.100

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:46.359511852264404

Lag 11

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.6s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.7s finished

Criando Previsões

Calculando Pearson

r2:(0.03753046078055036, 0.752581753163936)

Support vector ratio: 0.091

Best parameters set found on development set:

{'C': 2.501, 'epsilon': 1, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:51.402321577072144

Lag 12

Rodando Modelo

Fitting 10 folds for each of 300 candidates, totalling 3000 fits

[Parallel(n\_jobs=6)]: Using backend LokyBackend with 6 concurrent workers.

[Parallel(n\_jobs=6)]: Done 100 tasks | elapsed: 0.1s

Criando Previsões

Calculando Pearson

r2:(nan, nan)

Support vector ratio: 0.083

Best parameters set found on development set:

{'C': 0.001, 'epsilon': 0.001, 'gamma': 0.001, 'kernel': 'rbf'}

Grid scores on development set:

tempo decorrido:56.31907916069031

tempo decorrido total:56.31907916069031

[Parallel(n\_jobs=6)]: Done 2968 tasks | elapsed: 4.5s

[Parallel(n\_jobs=6)]: Done 3000 out of 3000 | elapsed: 4.5s finished

C:\Users\pamsb\Anaconda3\lib\site-packages\scipy\stats\stats.py:3508: PearsonRConstantInputWarning: An input array is constant; the correlation coefficent is not defined.

warnings.warn(PearsonRConstantInputWarning())