

HW3

Topics: Bayes Curve Fitting

Course: SEII

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Below data includes the predicted price, true value, estimation interval and absolute/relative mean error. The test data are the real time price during the whole day or the history price during one year. And the number of test data ranges from 40-50.

Predicted RESULT for CCF-03-02-2017:

Predicted price is: 93.94641464342904

True value is: 93.95

More precisely estimation: [93.02855813764454,94.86427114921354]

The absolute error for mean is: 0.003585356570965814

The relative error for mean is: 0.0038162390324276894%

Predicted RESULT for CCF-hist-2016-2017:

Predicted price is: 87.16014920673992

True value is: 89.25

More precisely estimation: [86.24977283278784,88.07052558069199]

The absolute error for mean is: 2.0898507932600836

The relative error for mean is: 2.3415695162577967%

Predicted RESULT for FB-03-02-2017:

Predicted price is: 136.68935709177885

True value is: 136.8776

More precisely estimation: [135.77150058599435,137.60721359756334]

The absolute error for mean is: 0.18824290822115586

The relative error for mean is: 0.1375264529924223%

Predicted RESULT for FB-hist-2016-2017:

Predicted price is: 120.05053281778342

True value is: 120.900002

More precisely estimation: [119.14015644383134,120.9609091917355]

The absolute error for mean is: 0.8494691822165805

The relative error for mean is: 0.7026213136179936%

Predicted RESULT for GOOG-03-02-2017:

Predicted price is: 831.5363384254365

True value is: 832.19

More precisely estimation: [830.6197148431597,832.4529620077133]

The absolute error for mean is: 0.6536615745635572

The relative error for mean is: 0.07854715564517203%

Predicted RESULT for GOOG-hist-2016-2017:

Predicted price is: 793.4665095927598

True value is: 800.400024

More precisely estimation: [792.5561332188078,794.3768859667119]

The absolute error for mean is: 6.933514407240182

The relative error for mean is: 0.8662561468439164%

Predicted RESULT for MSFT-03-02-2017:

Predicted price is: 64.37159669202029

True value is: 64.47

More precisely estimation: [63.45497310974354,65.28822027429705]

The absolute error for mean is: 0.09840330797970864

The relative error for mean is: 0.1526342608650669%
Predicted RESULT for MSFT-hist-2016-2017:
Predicted price is: 63.00944746654265
True value is: 62.950001
More precisely estimation: [62.09907109259057,63.919823840494736]
The absolute error for mean is: 0.05944646654265284
The relative error for mean is: 0.09443441715378662%

Predicted RESULT for YHOO-03-02-2017:
Predicted price is: 46.259488629006306
True value is: 46.27
More precisely estimation: [45.34286504672956,47.176112211283055]
The absolute error for mean is: 0.010511370993697255
The relative error for mean is: 0.0227174648664302%

Predicted RESULT for YHOO-hist-2016-2017:
Predicted price is: 36.64183139054171
True value is: 36.610001
More precisely estimation: [35.73145501658963,37.552207764493794]
The absolute error for mean is: 0.03183039054171388
The relative error for mean is: 0.08694452245907856%

In summary, the performance of evaluation is pretty good. The interval of the relative error lie in [0.0038162390324276894%,0.8662561468439164%]. 5 test results are smaller than 0.1%. 4 of them are no more than 1% and only one of them is 2%.