UDACITY

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DISCUSS ON STUDENT HUB

Combine Signals for Enhanced Alpha

REVIEW

CODE REVIEW

HISTORY

Meets Specifications

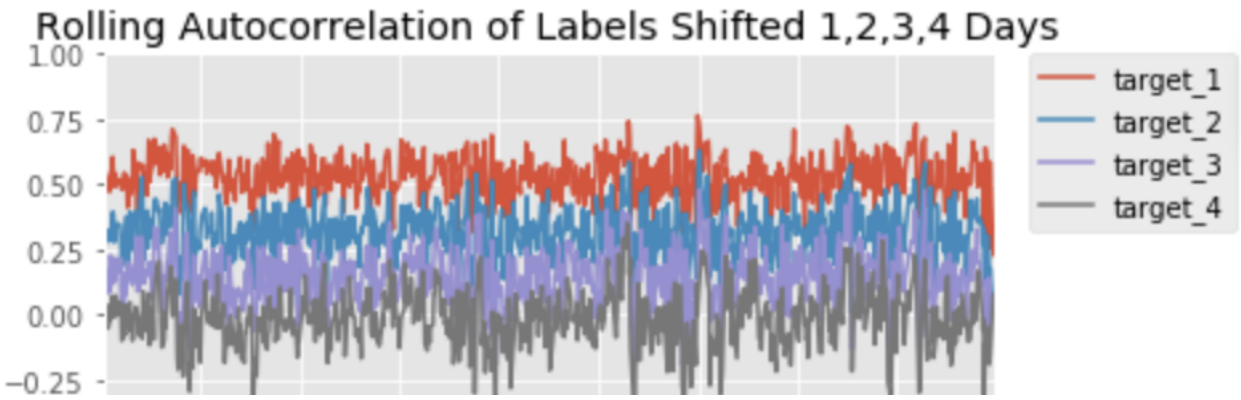
Even though the previous reviewer has passed some of the missing rubrics, you are still encouraged to fix them accordingly. Also, wish you all the best for the upcoming projects! 🤞
Tip: If you are interested in this topic, I would suggest that you could read this post to get more ideas about how to combine different alpha signals. Also this notebook to learn how to determine the risk exposure of alpha factors

Features and Labels

Describe the relationship between the shifted labels.

❌ Your observation is not correct. We can see that the auto-correlation is decreasing as the days shift. The highest auto-correlation is the two consecutive days.

```
all_factors['target_p'] = all_factors.groupby(level=1)['return_5d_p'].shift(-5)
all_factors['target_1'] = all_factors.groupby(level=1)['return_5d'].shift(-4)
```



Correctly implement the `train_valid_test_split` function.

Good job on splitting the data sets based on the index `all_x.index.levels[0]` 💯

Random Forests

Describe why dispersion_20d has the highest feature importance, when the first split is on the Momentum_1YR feature.

❌ You're slightly off from the question. The idea is that the feature importance will be **accumulated** and every split we only consider using the maximum important one to do the split. In other words, the Momentum_1YR feature has the largest information gain for one split. The dispersion_20d feature has more information gain when dealing with more splits.

Describe how the accuracy changes over time and what indicates the model is overfitting or underfitting.

Great answer👍The model is indeed overfitting because the accuracy of training is much better than the validation set

Overlapping Samples

Correctly implement the **`non_overlapping_samples`** function.

Good job, you correctly implement the `non_overlapping_samples` function.👍

Correctly implement the **`bagging_classifier`** function.

Fantastic, `bagging_classifier` function is correctly implemented.💯

Correctly implement the **`calculate_oob_score`** function.

Well done, you successfully complete this `calculate_oob_score` function with `oob_score_` attribute.👏

Correctly implement the **`non_overlapping_estimators`** function.

Good job, `non_overlapping_estimators` function successfully passed the test by correctly using `non_overlapping_samples` to split the data for each classifier.👍

```
samples = [non_overlapping_samples(x, y, n_skip_samples, i) for i in range(le
n(classifiers))]
```

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