

Summary

Group 4 students use the method of GAN to do the feature extraction and showed the definition as well as accuracy of prediction on financial market datasets. They derived the data about cryptocurrency and introduced the stationarity. With the experiments on feature extraction and direct traditional prediction methods, they finally find that the Variational Autoencoder and the Long short term neural network can give good precise while dilated CNN can not.

Strengths

- 1 Instead of using the given dataset, they choose their own, which is the asset data in finance field. It is interesting and practical.
- 2 Using the feature extraction method of Generative Adversarial Network (GAN) rather than the given methods, good point.
- 3 Explain the definitions clearly.

Weakness

- 1 There are a lot of financial terminologies without clear explanation and is difficult to read.
- 2 No abstract so that the readers can not catch the main idea immediately.
- 3 Lack useful conclusion and visualization process.
- 4 Seems just use the dataset rather than apply deep learning methods on the dataset, that is, no further explanation about the story and lack motivations.

Evaluation on Clarity and quality of writing (1-5): 3

The report is clearly written in method part but for experiment, is not so clear. The explanation about the network structure in page 7 is well organized and straightforward. The structure of the report is a little bit strange. There are several result parts and the introduction of definitions goes through the whole report, which makes the report somewhat unreadable.

Evaluation on Technical Quality (1-5): 2

The result is reasonable but not useful, the feature extraction do not improve the precise of prediction. The result is not strong enough to support the work while the definitions are clear. The python file lack visualization part and contains only feature extraction. It may be hard for others to replicate. There are little evaluation either for their method or works previously. Important literature review as well as definitions are cited well.

Overall rating: 3

Confidence on your assessment (1-3)

- 3** I have carefully read the paper and checked the results