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 - MSSV: K19414.1333
 - Môn thi: Khối Học Đại Học
 - Tổng số trang: 4

Trang 1

Chữ ký sinh viên

Như

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BÀI LÀM

FOPTIC is an analysis of stock prices on the Vietnamese stock market and predict in the future.

1. The stock market has always been an appealing investment channel and it is closely followed by many people all over the world. So far, the stock market in the world in general and in Vietnam in particular has attracted investors due to its high profitability, but it also carries a high level of risk. As a result, there is an urgent need for a risk-reduction tool that as model research that can serve as a reference source for investors, particularly FO as "newbie" investors.

Aside from that, the number of investors participating in the market is rapidly increasing due to the rapid development and popularity of the securities investment field.

The data in this topic includes all price data of the company listed in the Ho Chi Minh Stock Exchange and Hanoi Stock Exchange from the date of establishment of the exchange such as close price, open price, high price, low price, trade volume. That is secondary data and can be collected from Refinitiv Eikon, SSI board. That's also time-series data because price collected day by day reflects all market activity and price moves in kind of market so it is suitable to predict.

The problem of collecting data and preprocess maybe, there are

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Trang 1

Chữ ký sinh viên

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many ^{new} companies listed on the exchange so the data is not enough to run the model to predict or analysis. Moreover, maybe data format is different need synchronization.

2. The original raw data may be missing in some places. And that is close price, open price, high price, low price, trade volume, and there will be days with no trading and no data.

With missing value in close price, can use the cleaning method fill the closing price on the average between high and low price. And we also can exclude companies with data less than 5 years because

of the limitation of data to predict. The data structure consisting of 6 columns: symbol, low, high, close, open, trade volume corresponding to each stock code.

3. Maybe use line chart. Line chart are simply understood as the line from one closing price to the next closing price in the given ~~time~~ time frame.

Line chart providing investors with a quick look at key market trends in addition to support and resistance levels. If you want to see the market quickly at a glance, line chart can be helpful.

Advantages: easy to use, easy to recognize for non-specialist, easy to identify trend lines.

Defects: the ~~easy~~ sensitivity of stock market is high so it has low

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Trang 3

Chữ ký sinh viên

Nhu

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BÀI LÀM

efficiency in analysis, especially for short-term investment.....
Bar chart.....

A bar chart is a bit more complicated because it shows the price of
a commodity over the unit of time ^{opening} price, closing price,
highest and lowest price. It may be use for the top or bottom ~~top~~
part of the bar represents the highest or lowest in that trading time.

4. The method in this research is using ~~technical~~ technical analysis
and clustering the company, after that using classification of prediction
method.....

Each company, regardless of industry, has unique properties and ~~chara~~
characteristics. Companies respond different to a set of Technical Indicators
under that assumption. For each cluster of companies that are expected

to have to behave similarly, possibly in the same industry.....

After that, using ~~classification method~~ label "positive" for machine
learning and classification method, label "positive" if ~~a~~ increasing
stock price, prediction and label "negative" if decreasing stock price
prediction.....

5. The problem of model may maybe "True Negative + False Positive = 0"

maybe the model just predict "positive" label, so it maybe has
an imbalanced dataset. So the model is bad.....

The ad..... Good forecast for a decrease stock market to help investors
don't lose money

The defect: Bad forecast for "positive" and easy to have false alarm.

→ Prediction low but recall high.

Trang 4

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Chữ ký sinh viên

Như
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BÀI LÀM

- Can evaluate by accuracy and confusion matrix
- accuracy: correct predictions. If accuracy is not evaluate
Total data point. Defect: it only tell us the
- confusion matrix: accuracy of the model's prediction,
lost distinction between the model
- confusion matrix
- dd: provide more information about the class
- dis: it so hard to look