一个天真的低价买入策略

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library(knitr)  
knitr::opts\_chunk$set(echo = TRUE, message = FALSE)  
load("stock\_clean.rda")

## 获得每个股票最近三十个交易日的数据

library(dplyr)  
number\_of\_days = 30  
stock\_latest = slice(stock\_clean,1:number\_of\_days)

## 去掉没有即时更新的股票

stock\_latest\_clean = filter(stock\_latest,date >= "2016-12-01")

## 获得每只股票当前区间的收盘价格中位数

latest\_median = summarise(stock\_latest\_clean,  
 latest\_date = first(date),  
 median\_close = median(close)  
 )

## 获得每只股票当前区间的最新收盘价格

latest\_close = summarise(stock\_latest\_clean,  
 latest\_date = first(date),  
 latest\_close = first(close))

## merge历史中位数和最新价格

median\_close = merge(latest\_median,latest\_close,  
 by = c("code","latest\_date"))

## 计算低估率指标

under\_close = mutate(median\_close,  
 under\_ratio = latest\_close/median\_close)

## 获得最被低估的十只股票

under\_close\_sort = arrange(under\_close,under\_ratio)  
  
# 取出under\_close\_sort中排名前10的股票  
under\_close\_top10 = head(under\_close\_sort,10)   
  
head(under\_close\_top10)

## code latest\_date median\_close latest\_close under\_ratio  
## 1 SHA600647 2017-01-18 45.220 30.70 0.6789031  
## 2 SHE002620 2017-01-18 58.585 43.63 0.7447299  
## 3 SHE002656 2017-01-18 21.520 16.20 0.7527881  
## 4 SHA600568 2017-01-18 24.885 18.80 0.7554752  
## 5 SHE002458 2017-01-18 34.765 26.81 0.7711779  
## 6 SHE002486 2017-01-18 10.240 8.10 0.7910156

## 获取选定的十只股票近三十天的标准差

# 提取这10只股票的数据  
under\_top10 = filter(stock\_latest\_clean,   
 code %in% under\_close\_top10$code)   
  
# 获取这十只股票近30天的数据  
  
under\_top10\_30 = slice(under\_top10,1:30)  
  
# 计算这十只股票的标准差  
under\_top10\_sd = summarize(under\_top10\_30,D = sd(close))

## 将最新收盘价，中位数和标准差数据合并到一个数据集内

operation = merge(under\_close\_top10,  
 under\_top10\_sd,  
 by = "code")

## 生成买入和卖出指标

operation\_index = transmute(operation,  
 code = code,  
 date = latest\_date,  
 low = median\_close - 2\*D,  
 high = median\_close + 2\*D,  
 price = latest\_close,  
 ratio = under\_ratio)  
  
operation\_sort = arrange(operation\_index,ratio)

## 生成容易阅读的报告

report = transmute(operation\_sort,  
 code = code,  
 date = date,  
 buy\_or\_not = if\_else(price<low,"主人带我回家吧!","主公请三思!!!"),  
 sell\_or\_not = if\_else(price>= high,"分手!!!","微臣还能效犬马之劳!"),  
 ratio = ratio)

## 最终报告

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| code | date | buy\_or\_not | sell\_or\_not | ratio |
| SHA600647 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.6789031 |
| SHE002620 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7447299 |
| SHE002656 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7527881 |
| SHA600568 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7554752 |
| SHE002458 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7711779 |
| SHE002486 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7910156 |
| SHE002347 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.7958873 |
| SHA600506 | 2017-01-18 | 主公请三思!!! | 微臣还能效犬马之劳! | 0.8031600 |
| SHA600321 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.8050847 |
| SHA600084 | 2017-01-18 | 主人带我回家吧! | 微臣还能效犬马之劳! | 0.8101371 |