



Mark Meretzky <mark.meretzky@gmail.com>

pandas example - will send a sample excel file soon

2 messages

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To: Mark Meretzky <mark.meretzky@gmail.com>

Thu, Aug 3, 2017 at 6:33 PM

The two lines highlighted below do most of the analysis needed. very powerful functions.

```

"""
Calculate returns / spread of Top 3 sectors vs rest of the sectors to see if
sectors that are sized up outperform other sectors.
"""

import pandas as pd
import numpy as np
import matplotlib as plt
import csv
from datetime import datetime as dt

startTime = dt.now()
data = pd.read_csv("location>Returns.csv") #read file
data['Date'] = pd.DatetimeIndex(data['Date'])

# top N themes
n = 2

#Get top n Exp and Perf values by theme
top3LongExp = data.groupby("Date")["Long Exp"].apply(lambda x: x.nlargest(n).sum())
top3LongPerf = data.groupby("Date").apply(lambda x:x['Long Perf'][x['Long
Exp'].nlargest(n).index].sum())
top3ShortExp = data.groupby("Date")["Short Exp"].apply(lambda x: x.nsmallest(n).sum())
top3ShortPerf = data.groupby("Date").apply(lambda x:x['Short Perf'][x['Short
Exp'].nsmallest(n).index].sum())

#Merge into a single table
Top3 = pd.merge(pd.merge(pd.merge(top3LongExp.to_frame('Long Exp'),top3LongPerf.to_frame('Long
Perf'),left_index=True, right_index=True),
top3ShortExp.to_frame('Short Exp'),left_index=True, right_index=True),
top3ShortPerf.to_frame('Short Perf'),left_index=True,right_index=True)

#Get Exp and Perf of bottom (Total - n) themes
otherLongPerf = data.groupby("Date").apply(lambda x: x.sort_values(by='Long Exp',ascending=False)
[n:][['Long Exp','Long Perf']].sum())
otherShortPerf = data.groupby("Date").apply(lambda x: x.sort_values(by='Short
Exp',ascending=True)[n:][['Short Exp','Short Perf']].sum())

#Merge into a single table
other = pd.merge(otherLongPerf,otherShortPerf,left_index=True,right_index=True)

#Write onto excel file
writer = pd.ExcelWriter('location>Returns_out.xlsx')
Top3.to_excel(writer,sheet_name='Top N')
other.to_excel(writer,sheet_name='Rest')
writer.save()

print(dt.now()-startTime)

```

Maulik Mody <maulikbmody@gmail.com>

Thu, Aug 3, 2017 at 7:21 PM

8/8/2017

Gmail - pandas example - will send a sample excel file soon

To: Mark Meretzky <mark.meretzky@gmail.com>

File attached. You'll have to save it down and update location to your file location. Install and import pandas and they should work. The program doesn't really use numpy and matplotlib.

[Quoted text hidden]

 **Returns.csv.xlsx**
12K