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# [Ta-lib 函数一览](http://www.cnblogs.com/hhh5460/p/5602357.html)

import tkinter as tk

from tkinter import ttk

import matplotlib.pyplot as plt

import numpy as np

import talib as ta

series = np.random.choice([1, -1], size=200)

close = np.cumsum(series).astype(float)

# 重叠指标

def overlap\_process(event):

print(event.widget.get())

overlap = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(overlap, fontproperties="SimHei")

if overlap == '布林线':

pass

elif overlap == '双指数移动平均线':

real = ta.DEMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '指数移动平均线 ':

real = ta.EMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '希尔伯特变换——瞬时趋势线':

real = ta.HT\_TRENDLINE(close)

axes[1].plot(real, 'r-')

elif overlap == '考夫曼自适应移动平均线':

real = ta.KAMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '移动平均线':

real = ta.MA(close, timeperiod=30, matype=0)

axes[1].plot(real, 'r-')

elif overlap == 'MESA自适应移动平均':

mama, fama = ta.MAMA(close, fastlimit=0, slowlimit=0)

axes[1].plot(mama, 'r-')

axes[1].plot(fama, 'g-')

elif overlap == '变周期移动平均线':

real = ta.MAVP(close, periods, minperiod=2, maxperiod=30, matype=0)

axes[1].plot(real, 'r-')

elif overlap == '简单移动平均线':

real = ta.SMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '三指数移动平均线(T3)':

real = ta.T3(close, timeperiod=5, vfactor=0)

axes[1].plot(real, 'r-')

elif overlap == '三指数移动平均线':

real = ta.TEMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '三角形加权法 ':

real = ta.TRIMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif overlap == '加权移动平均数':

real = ta.WMA(close, timeperiod=30)

axes[1].plot(real, 'r-')

plt.show()

# 动量指标

def momentum\_process(event):

print(event.widget.get())

momentum = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(momentum, fontproperties="SimHei")

if momentum == '绝对价格振荡器':

real = ta.APO(close, fastperiod=12, slowperiod=26, matype=0)

axes[1].plot(real, 'r-')

elif momentum == '钱德动量摆动指标':

real = ta.CMO(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif momentum == '移动平均收敛/散度':

macd, macdsignal, macdhist = ta.MACD(close, fastperiod=12, slowperiod=26, signalperiod=9)

axes[1].plot(macd, 'r-')

axes[1].plot(macdsignal, 'g-')

axes[1].plot(macdhist, 'b-')

elif momentum == '带可控MA类型的MACD':

macd, macdsignal, macdhist = ta.MACDEXT(close, fastperiod=12, fastmatype=0, slowperiod=26, slowmatype=0, signalperiod=9, signalmatype=0)

axes[1].plot(macd, 'r-')

axes[1].plot(macdsignal, 'g-')

axes[1].plot(macdhist, 'b-')

elif momentum == '移动平均收敛/散度 固定 12/26':

macd, macdsignal, macdhist = ta.MACDFIX(close, signalperiod=9)

axes[1].plot(macd, 'r-')

axes[1].plot(macdsignal, 'g-')

axes[1].plot(macdhist, 'b-')

elif momentum == '动量':

real = ta.MOM(close, timeperiod=10)

axes[1].plot(real, 'r-')

elif momentum == '比例价格振荡器':

real = ta.PPO(close, fastperiod=12, slowperiod=26, matype=0)

axes[1].plot(real, 'r-')

elif momentum == '变化率':

real = ta.ROC(close, timeperiod=10)

axes[1].plot(real, 'r-')

elif momentum == '变化率百分比':

real = ta.ROCP(close, timeperiod=10)

axes[1].plot(real, 'r-')

elif momentum == '变化率的比率':

real = ta.ROCR(close, timeperiod=10)

axes[1].plot(real, 'r-')

elif momentum == '变化率的比率100倍':

real = ta.ROCR100(close, timeperiod=10)

axes[1].plot(real, 'r-')

elif momentum == '相对强弱指数':

real = ta.RSI(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif momentum == '随机相对强弱指标':

fastk, fastd = ta.STOCHRSI(close, timeperiod=14, fastk\_period=5, fastd\_period=3, fastd\_matype=0)

axes[1].plot(fastk, 'r-')

axes[1].plot(fastd, 'r-')

elif momentum == '三重光滑EMA的日变化率':

real = ta.TRIX(close, timeperiod=30)

axes[1].plot(real, 'r-')

plt.show()

# 周期指标

def cycle\_process(event):

print(event.widget.get())

cycle = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(cycle, fontproperties="SimHei")

if cycle == '希尔伯特变换——主要的循环周期':

real = ta.HT\_DCPERIOD(close)

axes[1].plot(real, 'r-')

elif cycle == '希尔伯特变换,占主导地位的周期阶段':

real = ta.HT\_DCPHASE(close)

axes[1].plot(real, 'r-')

elif cycle == '希尔伯特变换——相量组件':

inphase, quadrature = ta.HT\_PHASOR(close)

axes[1].plot(inphase, 'r-')

axes[1].plot(quadrature, 'g-')

elif cycle == '希尔伯特变换——正弦曲线':

sine, leadsine = ta.HT\_SINE(close)

axes[1].plot(sine, 'r-')

axes[1].plot(leadsine, 'g-')

elif cycle == '希尔伯特变换——趋势和周期模式':

integer = ta.HT\_TRENDMODE(close)

axes[1].plot(integer, 'r-')

plt.show()

# 统计功能

def statistic\_process(event):

print(event.widget.get())

statistic = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(statistic, fontproperties="SimHei")

if statistic == '线性回归':

real = ta.LINEARREG(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif statistic == '线性回归角度':

real = ta.LINEARREG\_ANGLE(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif statistic == '线性回归截距':

real = ta.LINEARREG\_INTERCEPT(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif statistic == '线性回归斜率':

real = ta.LINEARREG\_SLOPE(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif statistic == '标准差':

real = ta.STDDEV(close, timeperiod=5, nbdev=1)

axes[1].plot(real, 'r-')

elif statistic == '时间序列预测':

real = ta.TSF(close, timeperiod=14)

axes[1].plot(real, 'r-')

elif statistic == '方差':

real = ta.VAR(close, timeperiod=5, nbdev=1)

axes[1].plot(real, 'r-')

plt.show()

# 数学变换

def math\_transform\_process(event):

print(event.widget.get())

math\_transform = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(math\_transform, fontproperties="SimHei")

if math\_transform == '反余弦':

real = ta.ACOS(close)

axes[1].plot(real, 'r-')

elif math\_transform == '反正弦':

real = ta.ASIN(close)

axes[1].plot(real, 'r-')

elif math\_transform == '反正切':

real = ta.ATAN(close)

axes[1].plot(real, 'r-')

elif math\_transform == '向上取整':

real = ta.CEIL(close)

axes[1].plot(real, 'r-')

elif math\_transform == '余弦':

real = ta.COS(close)

axes[1].plot(real, 'r-')

elif math\_transform == '双曲余弦':

real = ta.COSH(close)

axes[1].plot(real, 'r-')

elif math\_transform == '指数':

real = ta.EXP(close)

axes[1].plot(real, 'r-')

elif math\_transform == '向下取整':

real = ta.FLOOR(close)

axes[1].plot(real, 'r-')

elif math\_transform == '自然对数':

real = ta.LN(close)

axes[1].plot(real, 'r-')

elif math\_transform == '常用对数':

real = ta.LOG10(close)

axes[1].plot(real, 'r-')

elif math\_transform == '正弦':

real = ta.SIN(close)

axes[1].plot(real, 'r-')

elif math\_transform == '双曲正弦':

real = ta.SINH(close)

axes[1].plot(real, 'r-')

elif math\_transform == '平方根':

real = ta.SQRT(close)

axes[1].plot(real, 'r-')

elif math\_transform == '正切':

real = ta.TAN(close)

axes[1].plot(real, 'r-')

elif math\_transform == '双曲正切':

real = ta.TANH(close)

axes[1].plot(real, 'r-')

plt.show()

# 数学操作

def math\_operator\_process(event):

print(event.widget.get())

math\_operator = event.widget.get()

upperband, middleband, lowerband = ta.BBANDS(close, timeperiod=5, nbdevup=2, nbdevdn=2, matype=0)

fig, axes = plt.subplots(2, 1, sharex=True)

ax1, ax2 = axes[0], axes[1]

axes[0].plot(close, 'rd-', markersize=3)

axes[0].plot(upperband, 'y-')

axes[0].plot(middleband, 'b-')

axes[0].plot(lowerband, 'y-')

axes[0].set\_title(math\_operator, fontproperties="SimHei")

if math\_operator == '指定的期间的最大值':

real = ta.MAX(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif math\_operator == '指定的期间的最大值的索引':

integer = ta.MAXINDEX(close, timeperiod=30)

axes[1].plot(integer, 'r-')

elif math\_operator == '指定的期间的最小值':

real = ta.MIN(close, timeperiod=30)

axes[1].plot(real, 'r-')

elif math\_operator == '指定的期间的最小值的索引':

integer = ta.MININDEX(close, timeperiod=30)

axes[1].plot(integer, 'r-')

elif math\_operator == '指定的期间的最小和最大值':

min, max = ta.MINMAX(close, timeperiod=30)

axes[1].plot(min, 'r-')

axes[1].plot(max, 'r-')

elif math\_operator == '指定的期间的最小和最大值的索引':

minidx, maxidx = ta.MINMAXINDEX(close, timeperiod=30)

axes[1].plot(minidx, 'r-')

axes[1].plot(maxidx, 'r-')

elif math\_operator == '合计':

real = ta.SUM(close, timeperiod=30)

axes[1].plot(real, 'r-')

plt.show()

root = tk.Tk()

# 第一行：重叠指标

rowframe1 = tk.Frame(root)

rowframe1.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe1, text="重叠指标").pack(side=tk.LEFT)

overlap\_indicator = tk.StringVar() # 重叠指标

combobox1 = ttk.Combobox(rowframe1, textvariable=overlap\_indicator)

combobox1['values'] = ['布林线','双指数移动平均线','指数移动平均线 ','希尔伯特变换——瞬时趋势线',

'考夫曼自适应移动平均线','移动平均线','MESA自适应移动平均','变周期移动平均线',

'简单移动平均线','三指数移动平均线(T3)','三指数移动平均线','三角形加权法 ','加权移动平均数']

combobox1.current(0)

combobox1.pack(side=tk.LEFT)

combobox1.bind('<<ComboboxSelected>>', overlap\_process)

# 第二行：动量指标

rowframe2 = tk.Frame(root)

rowframe2.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe2, text="动量指标").pack(side=tk.LEFT)

momentum\_indicator = tk.StringVar() # 动量指标

combobox2 = ttk.Combobox(rowframe2, textvariable=momentum\_indicator)

combobox2['values'] = ['绝对价格振荡器','钱德动量摆动指标','移动平均收敛/散度','带可控MA类型的MACD',

'移动平均收敛/散度 固定 12/26','动量','比例价格振荡器','变化率','变化率百分比',

'变化率的比率','变化率的比率100倍','相对强弱指数','随机相对强弱指标','三重光滑EMA的日变化率']

combobox2.current(0)

combobox2.pack(side=tk.LEFT)

combobox2.bind('<<ComboboxSelected>>', momentum\_process)

# 第三行：周期指标

rowframe3 = tk.Frame(root)

rowframe3.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe3, text="周期指标").pack(side=tk.LEFT)

cycle\_indicator = tk.StringVar() # 周期指标

combobox3 = ttk.Combobox(rowframe3, textvariable=cycle\_indicator)

combobox3['values'] = ['希尔伯特变换——主要的循环周期','希尔伯特变换——主要的周期阶段','希尔伯特变换——相量组件',

'希尔伯特变换——正弦曲线','希尔伯特变换——趋势和周期模式']

combobox3.current(0)

combobox3.pack(side=tk.LEFT)

combobox3.bind('<<ComboboxSelected>>', cycle\_process)

# 第四行：统计功能

rowframe4 = tk.Frame(root)

rowframe4.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe4, text="统计功能").pack(side=tk.LEFT)

statistic\_indicator = tk.StringVar() # 统计功能

combobox4 = ttk.Combobox(rowframe4, textvariable=statistic\_indicator)

combobox4['values'] = ['贝塔系数；投资风险与股市风险系数','皮尔逊相关系数','线性回归','线性回归角度',

'线性回归截距','线性回归斜率','标准差','时间序列预测','方差']

combobox4.current(0)

combobox4.pack(side=tk.LEFT)

combobox4.bind('<<ComboboxSelected>>', statistic\_process)

# 第五行：数学变换

rowframe5 = tk.Frame(root)

rowframe5.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe5, text="数学变换").pack(side=tk.LEFT)

math\_transform = tk.StringVar() # 数学变换

combobox5 = ttk.Combobox(rowframe5, textvariable=math\_transform\_process)

combobox5['values'] = ['反余弦','反正弦','反正切','向上取整','余弦','双曲余弦','指数','向下取整',

'自然对数','常用对数','正弦','双曲正弦','平方根','正切','双曲正切']

combobox5.current(0)

combobox5.pack(side=tk.LEFT)

combobox5.bind('<<ComboboxSelected>>', math\_transform\_process)

# 第六行：数学操作

rowframe6 = tk.Frame(root)

rowframe6.pack(side=tk.TOP, ipadx=3, ipady=3)

tk.Label(rowframe6, text="数学操作").pack(side=tk.LEFT)

math\_operator = tk.StringVar() # 数学操作

combobox6 = ttk.Combobox(rowframe6, textvariable=math\_operator\_process)

combobox6['values'] = ['指定期间的最大值','指定期间的最大值的索引','指定期间的最小值','指定期间的最小值的索引',

'指定期间的最小和最大值','指定期间的最小和最大值的索引','合计']

combobox6.current(0)

combobox6.pack(side=tk.LEFT)

combobox6.bind('<<ComboboxSelected>>', math\_operator\_process)

root.mainloop()

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[#1楼](https://www.cnblogs.com/hhh5460/p/5602357.html#3620385) 2017-02-16 20:32 [剑\_雪](http://home.cnblogs.com/u/1107726/)

你好，我正在研究TA-Lib，我想知道你这里面对于talib里函数的用法是从哪里得到的，官网好象没有说明！  
希望得到你的答复，非常感谢！

[支持(0)反对(0)](javascript:void(0);)

[#2楼](https://www.cnblogs.com/hhh5460/p/5602357.html#3621487)[楼主] 2017-02-18 15:45 [罗兵](http://www.cnblogs.com/hhh5460/)

用法是在网上找的，当时我收藏了，不过我重装系统后就没了。  
你去几个宽客论坛找找，我记得好像有链接，具体我也不记得了。

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[#3楼](https://www.cnblogs.com/hhh5460/p/5602357.html#3621489)[楼主] 2017-02-18 15:47 [罗兵](http://www.cnblogs.com/hhh5460/)

我电脑里找出来了：  
<http://mrjbq7.github.io/ta-lib/>

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http://pic.cnblogs.com/face/709432/20150122201055.png

[#4楼](https://www.cnblogs.com/hhh5460/p/5602357.html#3622012) 2017-02-20 08:54 [剑\_雪](http://home.cnblogs.com/u/1107726/)

谢谢你，虽然没有完全解决我的问题，但从上面代码里找到了一些有用的东西。

[支持(0)反对(0)](javascript:void(0);)

[#5楼](https://www.cnblogs.com/hhh5460/p/5602357.html#3704758)37047582017/6/1 12:23:44 2017-06-01 12:23 [尝试新事情](http://www.cnblogs.com/30daydo/)

很好的入门教程。  
  
不过在python2上面，字符串比较都需要用unicode才能显示跳转到条件语句。

[支持(0)反对(0)](javascript:void(0);)

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### django

* [【易百教程】Python GUI编程(Tkinter)](http://www.yiibai.com/python/python_gui_programming.html#python_gui_programming)
* [Django/用户认证](http://zh.wikibooks.org/wiki/Django/%E7%94%A8%E6%88%B7%E8%AE%A4%E8%AF%81)
* [多表连接(join)小结](http://www.cnblogs.com/ybwang/archive/2010/06/04/1751727.html)
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### Git

* [Git版本控制软件结合GitHub从入门到精通常用命令学习手册](http://www.ihref.com/read-16369.html)

### PyQt

### python

* [scrapy py3](https://blog.scrapinghub.com/2016/02/04/python-3-support-with-scrapy-1-1rc1/)

### SQL

* [[图解] 11招教你如何玩转数据库设计](http://www.csdn.net/article/2012-04-11/2804419)
* [数据库设计原则（转载）](http://www.cnblogs.com/wuhenke/archive/2010/08/11/1797307.html)

### 最新评论

* [1. Re:用matplotlib获取雅虎股票数据并作图](http://www.cnblogs.com/hhh5460/p/5120079.html#3897998)
* @树深时\_见鹿建议改用 tushare库 获取股票数据！...
* --罗兵
* [2. Re:用matplotlib获取雅虎股票数据并作图](http://www.cnblogs.com/hhh5460/p/5120079.html#3896806)
* 楼主，我也出现了3楼的问题，希望你能运行一下代码看看是否也会报错？怀疑是网站丢失或者被墙了？因为我直接搜网站也打不开。  
  希望你也运行一下代码的原因是看看是我们的问题还是网站自身的问题。谢谢！
* --树深时\_见鹿
* [3. Re:matplotlib 雷达图2](http://www.cnblogs.com/hhh5460/p/7359607.html#3893607)
* @非洲黑叔叔我的环境是python 3.6，运行无误。我猜你的环境是2.7，所以我也无能为力，抱歉...
* --罗兵
* [4. Re:matplotlib 雷达图2](http://www.cnblogs.com/hhh5460/p/7359607.html#3891279)
* 谢谢分享，但是我使用了你的代码之后，出现了'ascii' codec can't decode byte 0xb4 in position 18: ordinal not in range(128)这......
* --非洲黑叔叔
* [5. Re:结合Scikit-learn介绍几种常用的特征选择方法](http://www.cnblogs.com/hhh5460/p/5186226.html#3887200)
* 谢谢po主，祝福一生平安
* --scarlett\_ma

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* [5. Ta-lib 函数一览(12937)](http://www.cnblogs.com/hhh5460/p/5602357.html)

### 评论排行榜

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* [3. python 3.5 成功安装 scrapy 的步骤(7)](http://www.cnblogs.com/hhh5460/p/5814275.html)
* [4. python 3 安装 scrapy 并运行成功(6)](http://www.cnblogs.com/hhh5460/p/5707043.html)
* [5. django-groundwork(6)](http://www.cnblogs.com/hhh5460/p/4564214.html)

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