

17-18赛季NBA常规赛结果预测--软件安装过程指导

bbbb实用软件工程期末

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提示：不需要在本机额外安装python库，项目不兼容python3

- 项目github地址：

```
1. https://github.com/Li-Yingmin/nba_prediction
```

- Linux操作系统（或者Windows10内嵌的Ubuntu系统）
- 会使用基本的命令行指令

按照如下步骤进行安装：

(1) 安装virtualenv

```
$ sudo apt-get install virtualenv
```

(2) 克隆项目

```
$ git clone https://github.com/Li-Yingmin/nba_prediction.git
```

(3) 激活python2.7 虚拟环境

```
$ source 项目之前的目录/nba_prediction/nba_pre_demo/bin/activate
```

(4) 修改需要预测的比赛日程

修改以下目录的17-18Schedule.csv文件即可：

```
目录/nba_prediction/nba_pre_demo/proj/data/17-18Schedule.csv
```

如不需要修改，可以保留原文件，原文件中存储的是12月份和1月份的比赛日程。

(5) 执行程序

使用python命令执行以下可执行文件：

```
$ python 目录/nba_prediction/nba_pre_demo/proj/prediction.py
```

执行效果如下图：

```
(nba_pre_demo) LiYingmin@Yingmin-LI:~/MyProj/nba_prediction/nba_pre_demo/proj$ python2.7 prediction.py
<class 'pandas.core.frame.DataFrame'>
Int64Index: 30 entries, 0 to 29
Data columns (total 66 columns):
Team          30 non-null object
Age           30 non-null float64
W             30 non-null int64
L             30 non-null int64
PW            30 non-null int64
PL            30 non-null int64
MOV           30 non-null float64
SOS           30 non-null float64
SRS           30 non-null float64
ORtg          30 non-null float64
DRtg          30 non-null float64
Pace          30 non-null float64
FTr           30 non-null float64
3PAr          30 non-null float64
TS%           30 non-null float64
eFG%          30 non-null float64
FT_y          30 non-null float64
FTA_y         30 non-null float64
FT%_y         30 non-null float64
ORB_y         30 non-null float64
DRB_y         30 non-null float64
TRB_y         30 non-null float64
AST_y         30 non-null float64
STL_y         30 non-null float64
BLK_y         30 non-null float64
TOV_y         30 non-null float64
PF_y          30 non-null float64
PTS_y         30 non-null float64
dtypes: float64(60), int64(5), object(1)
memory usage: 15.7+ KB
None
Building data set..
Fitting on 1316 game samples..
Doing cross-validation..
0.693085909002
Predicting on new schedule..
(nba pre demo) LiYingmin@Yingmin-LI:~/MyProj/nba_prediction/nba_pre_demo/proj$ ls
17-18Result.csv  data  prediction.py
```

(6)运行结果

执行结束之后会在 `prediction.py` 所在目录生成 `17-18Result.csv`

1	date	win	lose	probability
2	Fri Dec 1 2017	Chicago Bulls	Sacramento Kings	0.622669421
3	Fri Dec 1 2017	San Antonio Spurs	Memphis Grizzlies	0.83544648
4	Fri Dec 1 2017	Miami Heat	Charlotte Hornets	0.576486535
5	Fri Dec 1 2017	Oklahoma City Thunder	Minnesota Timberwolves	0.909592301
6	Fri Dec 1 2017	Golden State Warriors	Orlando Magic	0.877420018
7	Fri Dec 1 2017	Toronto Raptors	Indiana Pacers	0.712923437
8	Fri Dec 1 2017	Utah Jazz	New Orleans Pelicans	0.724010722
9	Fri Dec 1 2017	Washington Wizards	Detroit Pistons	0.559413039
10	Sat Dec 2 2017	Boston Celtics	Phoenix Suns	0.853777969
11	Sat Dec 2 2017	Atlanta Hawks	Brooklyn Nets	0.829205324
12	Sat Dec 2 2017	Cleveland Cavaliers	Memphis Grizzlies	0.88201385
13	Sat Dec 2 2017	Los Angeles Clippers	Dallas Mavericks	0.632254791
14	Sat Dec 2 2017	Denver Nuggets	Los Angeles Lakers	0.7349238
15	Sat Dec 2 2017	Milwaukee Bucks	Sacramento Kings	0.51556504