

analyse_data

January 31, 2021

```
[1]: import matplotlib.pyplot as plt
import pandas as pd
```

```
[2]: df = pd.read_csv("onlocalhost.csv")
df.head()
```

```
[2]:
```

	RecvTime	oldRecvTime	SendTime	oldSendTime
0	25324960	25324960	25124436	25108576
1	25324993	25324960	25124452	25124436
2	25325009	25324993	25124469	25124452
3	25325009	25325009	25124469	25124469
4	25325025	25325009	25124485	25124469

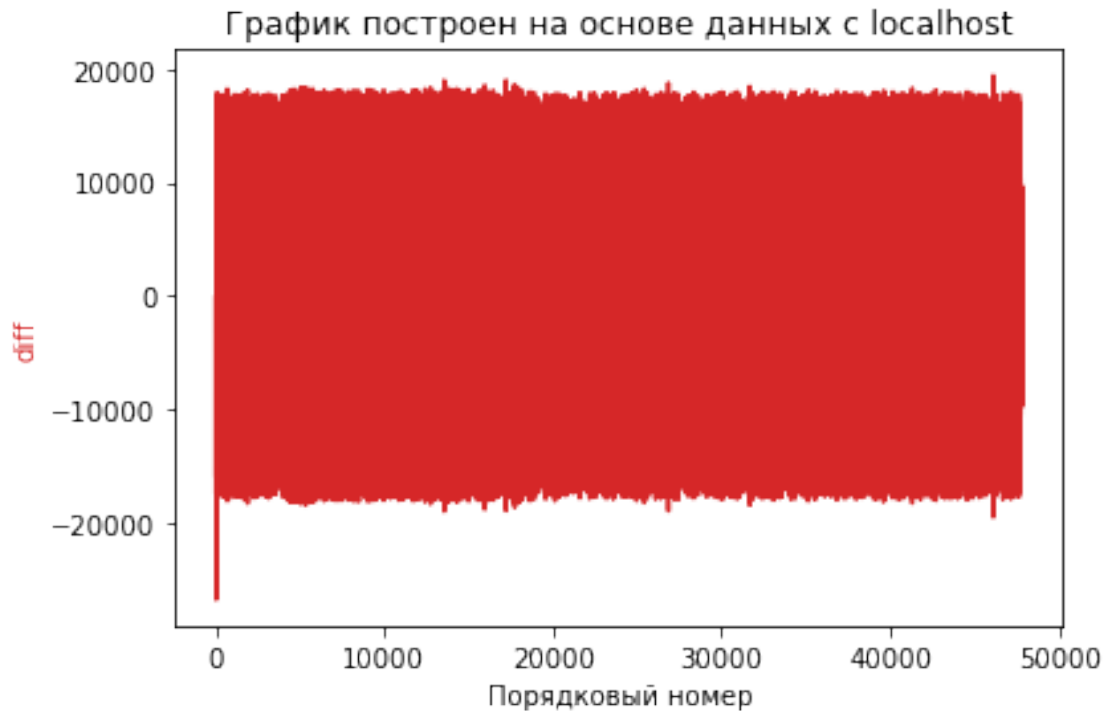
```
[3]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    ↪(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 50000)]
diff = diff[(diff["diff"] > -50000)]
diff.head()
```

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[3]:
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	diff
0	-15860
1	17
2	-1
3	0
4	0

```
[4]: fig, ax1 = plt.subplots()

color = 'tab:red'
ax1.set_xlabel('')
ax1.set_ylabel('diff', color=color) # we already handled the x-label with ax1
ax1.plot(diff,color=color)
plt.title("localhost")
plt.show()
```



```
[5]: df = pd.read_csv("25mschannel.csv")
      df.head()
```

```
[5]:   RecvTime  oldRecvTime  SendTime  oldSendTime
0   61190955    61190955   60953696    60953679
1   61190988    61190955   60953696    60953696
2   61190988    61190988   60953712    60953696
3   61190988    61190988   60953712    60953712
4   61190988    61190988   60953729    60953712
```

```
[6]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    ↪(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 50000)]
diff = diff[(diff["diff"] > -50000)]
```

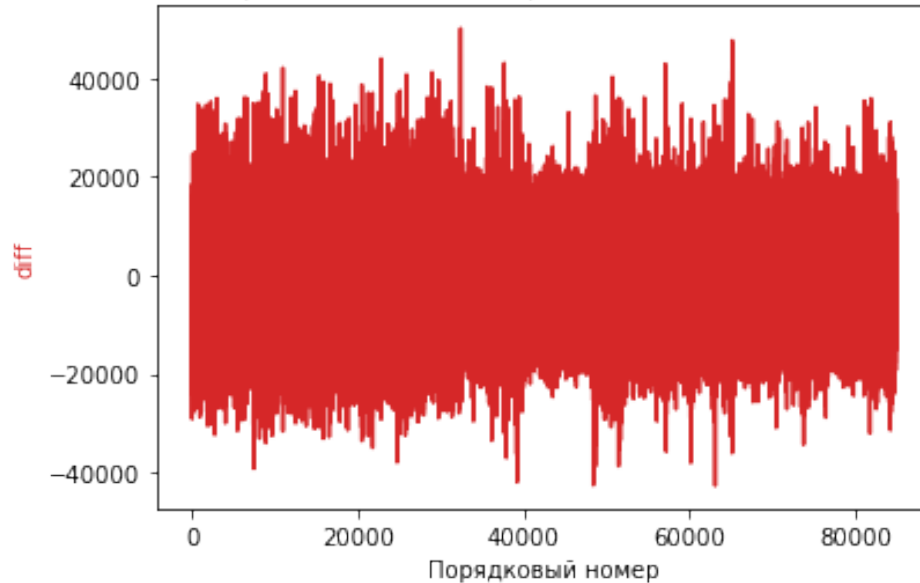
```
[7]: fig, ax1 = plt.subplots()

color = 'tab:red'
ax1.set_xlabel('')
ax1.set_ylabel('diff', color=color) # we already handled the x-label with ax1
ax1.plot(diff,color=color)

plt.title("", , omnet,
```

```
plt.show()
```

График построен на основе данных, при пропуске трафика через omnet, значение задержки канала было равно 25, а пинг был между 40 и 80



```
[8]: df = pd.read_csv("70mschannel.csv")
df.head()
```

```
[8]:
```

	RecvTime	oldRecvTime	SendTime	oldSendTime
0	39004030	39004030	38720601	38702775
1	39004079	39004030	38734642	38720601
2	39004096	39004079	38734658	38734642
3	39004096	39004096	38734674	38734658
4	39004112	39004096	38734691	38734674

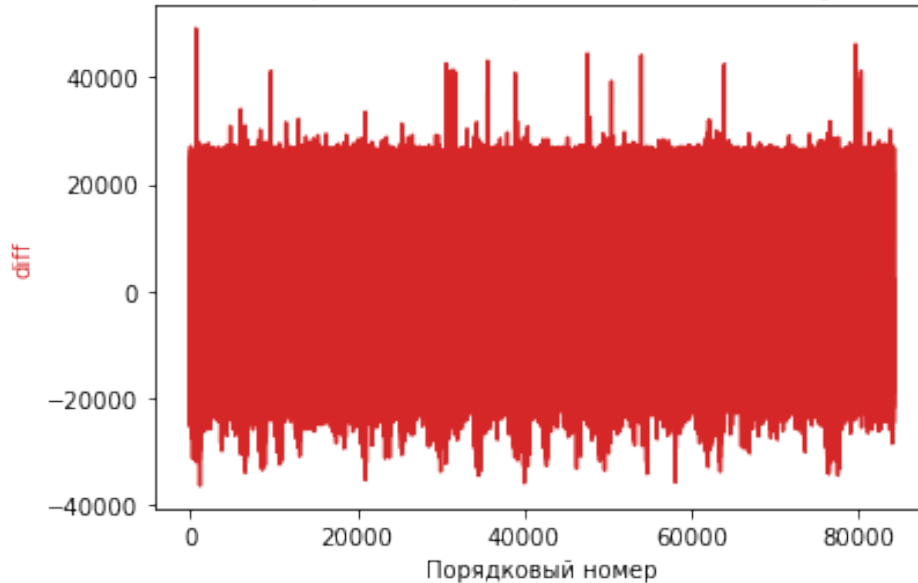
```
[9]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    →(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 50000)]
diff = diff[(diff["diff"] > -50000)]
```

```
[10]: fig, ax1 = plt.subplots()

color = 'tab:red'
ax1.set_xlabel('')
ax1.set_ylabel('diff', color=color) # we already handled the x-label with ax1
ax1.plot(diff,color=color)
plt.title("","omnet,
```

```
plt.show()
```

График построен на основе данных, при пропуске трафика через omnet, значение задержки канала равно 70, пинг между 150 и 190



```
[11]: df = pd.read_csv("500rate.csv")
      df.head()
```

```
[11]:   RecvTime  oldRecvTime  SendTime  oldSendTime
0  46682409    46682393   46460505    46441073
1  46682475    46682409   46473006    46460505
2  46682491    46682475   46473022    46473006
3  46682491    46682491   46473038    46473022
4  46682508    46682491   46473038    46473038
```

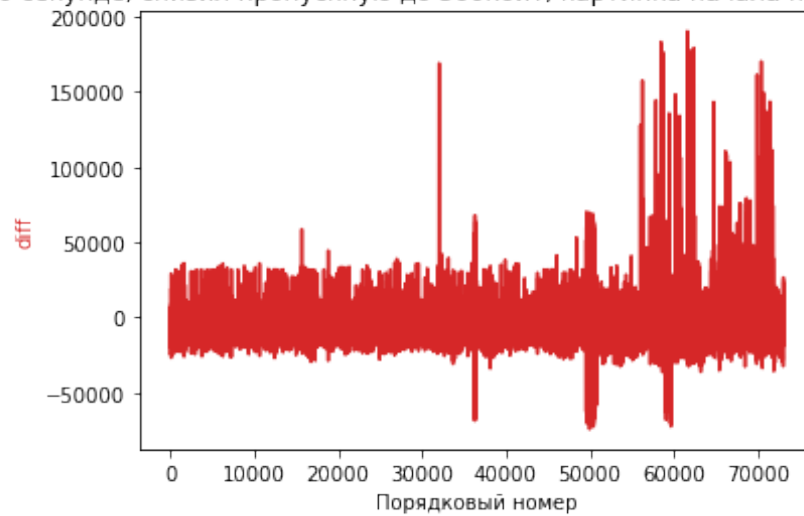
```
[12]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    ↪(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 200000)]
diff = diff[(diff["diff"] > -200000)]
```

```
[13]: fig, ax1 = plt.subplots()

      color = 'tab:red'
      ax1.set_xlabel('')
      ax1.set_ylabel('diff', color=color) # we already handled the x-label with ax1
      ax1.plot(diff,color=color)
      plt.title(" ", , omnet,
```

```
200 , 500 , """)  
plt.show()
```

График построен на основе данных, при пропуске трафика через отпет,
на 200 секунде, снизил пропускную до 500кбит, картинка начала потихоньку плыть



[]: