

analyse_data

January 31, 2021

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

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

```
[2]:
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	RecvTime	oldRecvTime	SendTime	oldSendTime
0	59258	59258	59057	59057
1	59258	59258	59057	59057
2	59258	59258	59057	59057
3	59258	59258	59057	59057
4	59258	59258	59057	59057

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

```
[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()
```

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[5]:
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	RecvTime	oldRecvTime	SendTime	oldSendTime
0	40399	40399	40166	40166
1	40399	40399	40166	40166
2	40399	40399	40166	40166
3	40399	40399	40166	40166
4	40399	40399	40166	40166

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

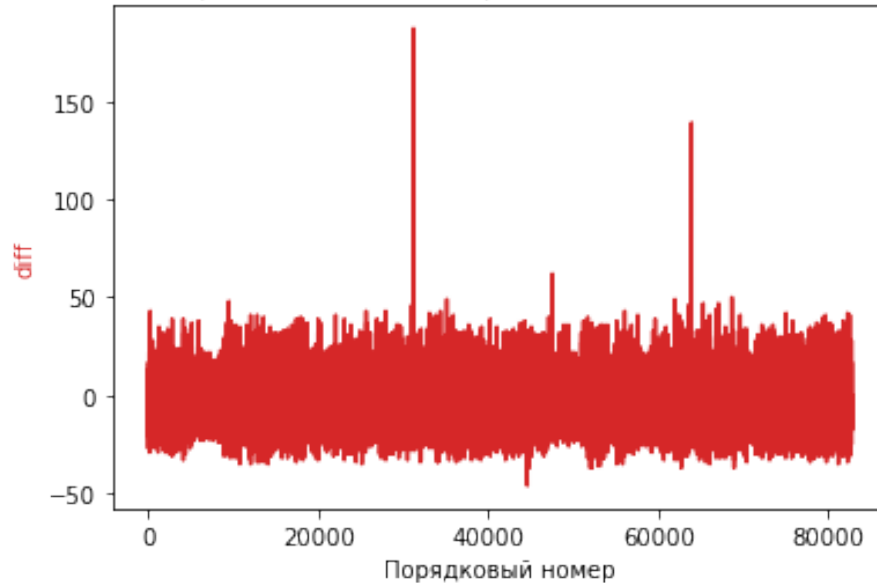
```
[7]: fig, ax1 = plt.subplots()

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,
```

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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     56156         56156     55859         55859
1     56156         56156     55859         55859
2     56156         56156     55859         55859
3     56156         56156     55859         55859
4     56156         56156     55859         55859
```

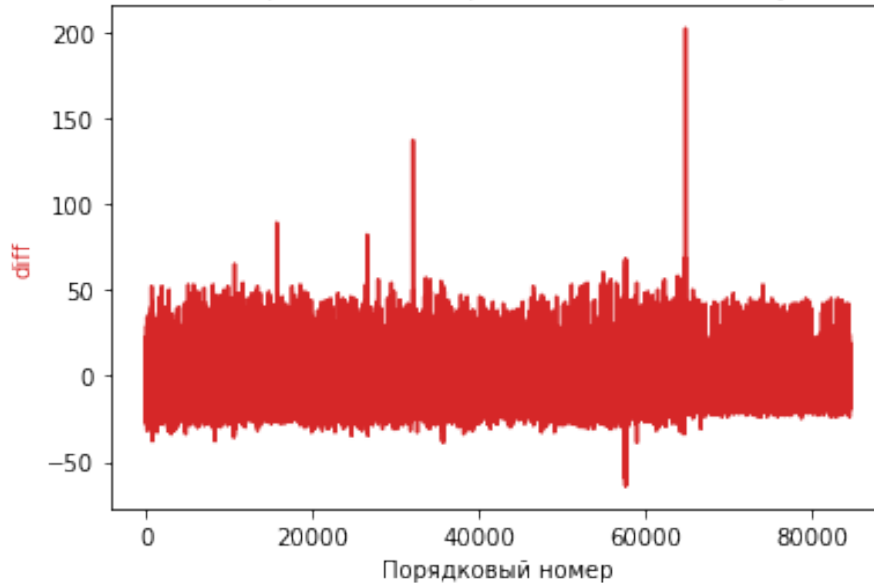
```
[9]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    →(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 50000)]
diff = diff[(diff["diff"] > -50000)]
```

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

color = 'tab:red'
ax1.set_xlabel('Порядковый номер')
ax1.set_ylabel('diff', color=color) # we already handled the x-label with ax1
ax1.plot(diff,color=color)
plt.title("График задержки канала при пропуске трафика через omnet, значение задержки канала было равно 25, а пинг был между 40 и 80")
```

```
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	52437	52437	52204	52189
1	52437	52437	52204	52204
2	52437	52437	52204	52204
3	52437	52437	52204	52204
4	52437	52437	52204	52204

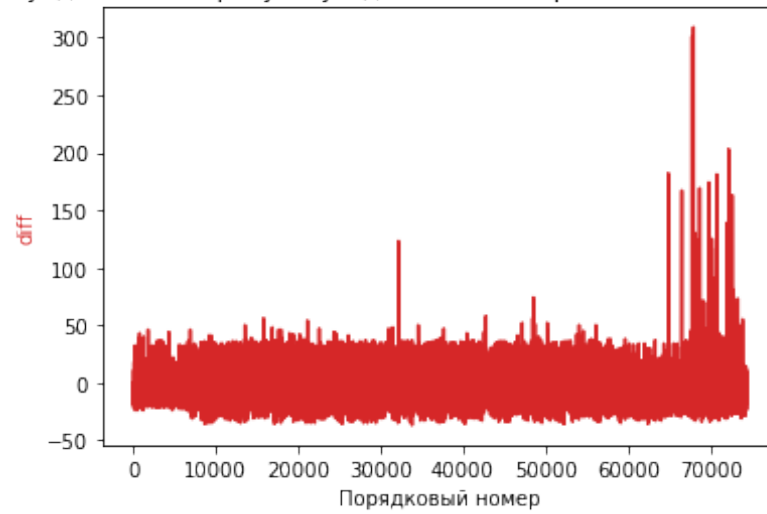
```
[12]: diff = pd.DataFrame( {"diff":(df["RecvTime"] - df["oldRecvTime"] -
    →(df["SendTime"] - df["oldSendTime"]))})
diff = diff[(diff["diff"] < 60000)]
diff = diff[(diff["diff"] > -60000)]
```

```
[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,
```

```
250 , 500 , """)  
plt.show()
```

График построен на основе данных, при пропуске трафика через omnet,
на 250 секунде, снизил пропускную до 500кбит, картинка начала потихоньку плыть



[]: