

## Social\_Media\_Followers\_Prediction\_with\_Machine\_Learning

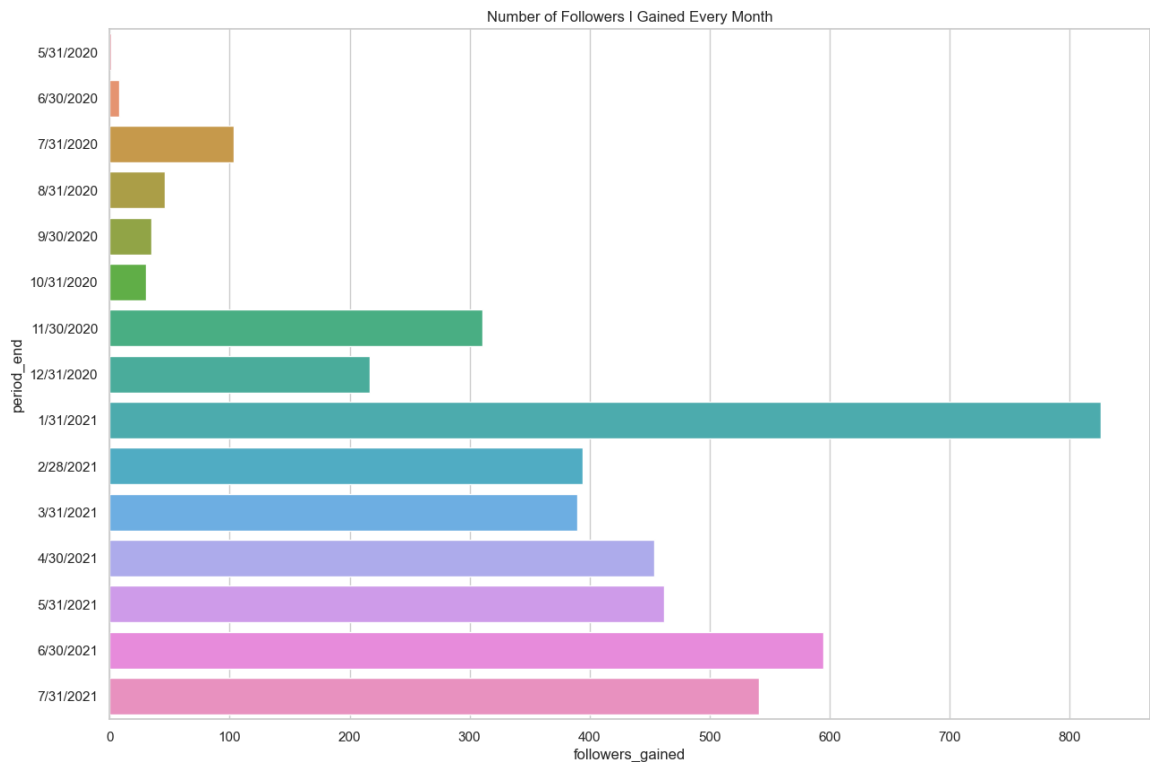
```
In [2]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np

data = pd.read_csv("stats.csv")
data.drop(data.tail(1).index, inplace=True)
data.head()
```

```
Out[2]:
```

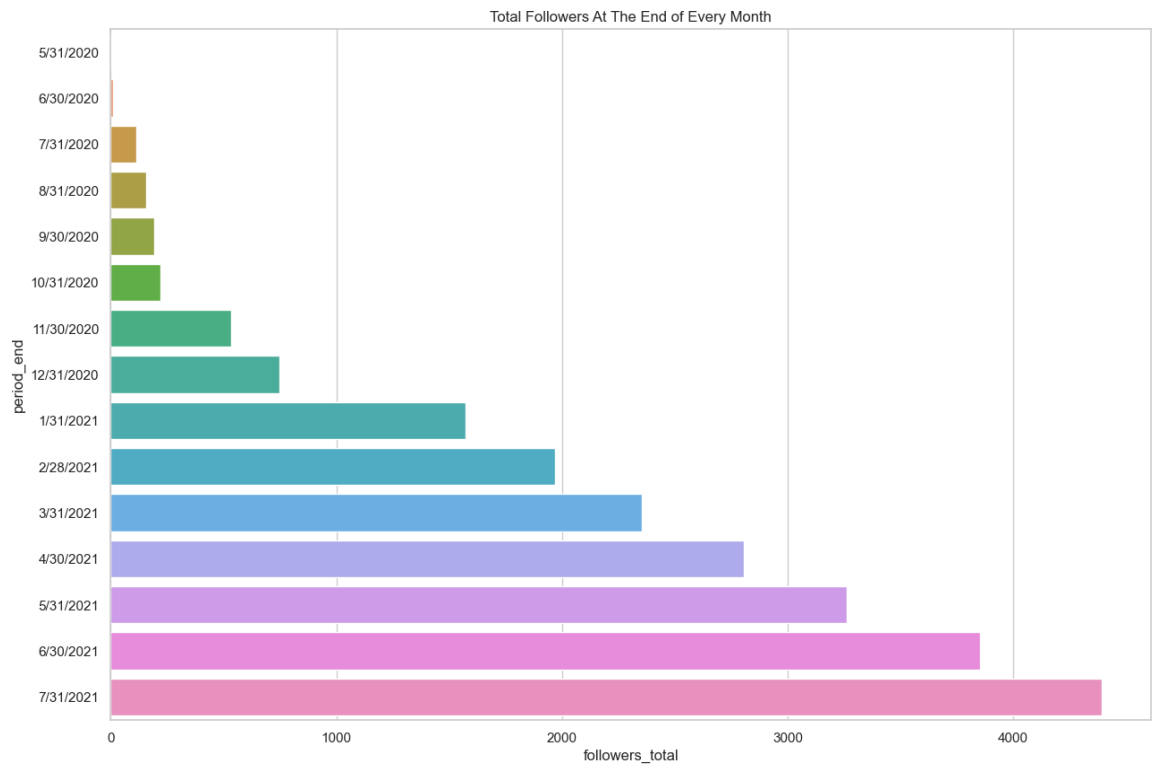
	period_start	period_end	followers_gained	followers_lost	followers_net	followers_total	su
0	5/1/2020	5/31/2020	1	0	1	1	
1	6/1/2020	6/30/2020	8	0	8	9	
2	7/1/2020	7/31/2020	103	0	103	112	
3	8/1/2020	8/31/2020	46	0	46	158	
4	9/1/2020	9/30/2020	35	1	34	192	

```
In [3]: plt.figure(figsize=(15, 10))
sns.set_theme(style="whitegrid")
plt.title("Number of Followers I Gained Every Month")
sns.barplot(x="followers_gained", y="period_end", data=data)
plt.show()
```



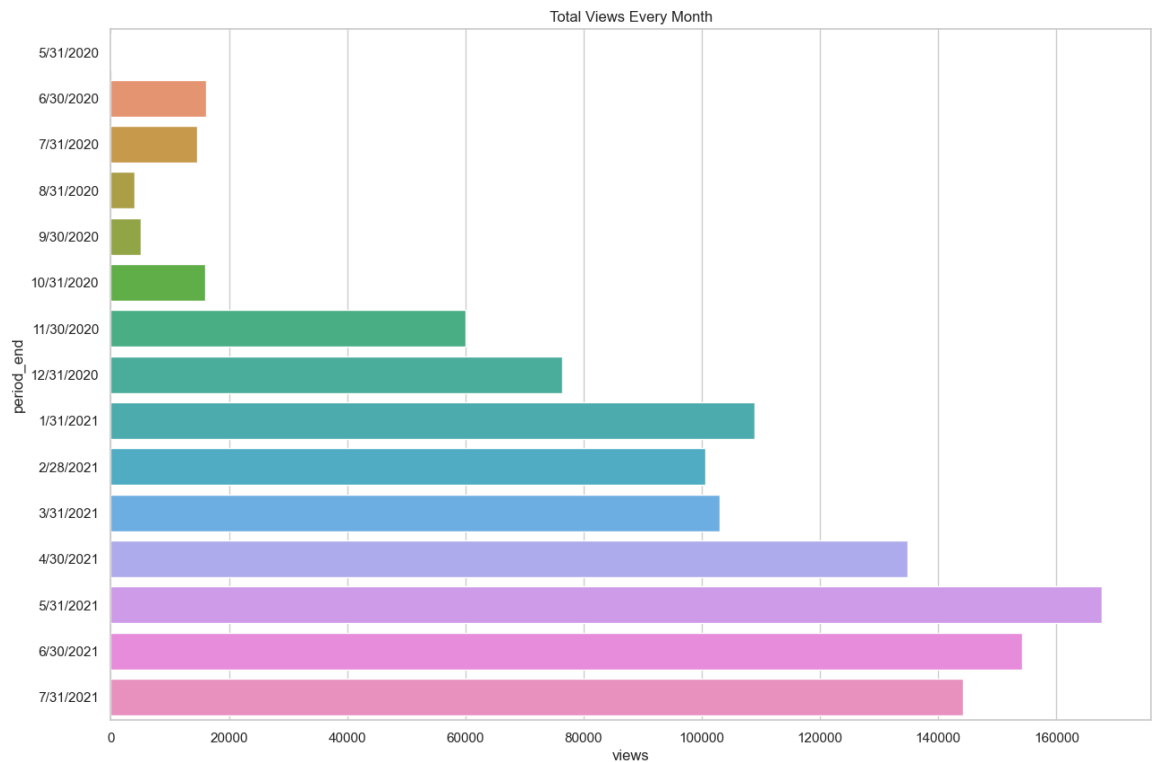
**Now let's have a look at the total number of followers I end up with every month:**

```
In [4]: plt.figure(figsize=(15, 10))
sns.set_theme(style="whitegrid")
plt.title("Total Followers At The End of Every Month")
sns.barplot(x="followers_total", y="period_end", data=data)
plt.show()
```



Now let's take a look at one of the most important features, which is the total number of views I get each month:

```
In [5]: plt.figure(figsize=(15, 10))
sns.set_theme(style="whitegrid")
plt.title("Total Views Every Month")
sns.barplot(x="views", y="period_end", data=data)
plt.show()
```



**Now here's how we can predict the increase in the number of followers we can expect to see over the next four months:**

```
In [*]: from autots import AutoTS
model = AutoTS(forecast_length=4, frequency='infer', ensemble='simple')
model = model.fit(data, date_col='period_end', value_col='followers_gained',
prediction = model.predict()
forecast = prediction.forecast
print(forecast)
```

```
Data frequency is: M, used frequency is: M
Model Number: 1 with model ARIMA in generation 0 of 10
Model Number: 2 with model AverageValueNaive in generation 0 of 10
Model Number: 3 with model AverageValueNaive in generation 0 of 10
Model Number: 4 with model AverageValueNaive in generation 0 of 10
Model Number: 5 with model DatepartRegression in generation 0 of 10
Model Number: 6 with model DatepartRegression in generation 0 of 10
Model Number: 7 with model DatepartRegression in generation 0 of 10

C:\Users\baps\anaconda3\lib\site-packages\sklearn\svm\_classes.py:32: FutureWarning: The default value of `dual` will change from `True` to `auto` in 1.5. Set the value of `dual` explicitly to suppress the warning.
  warnings.warn(
C:\Users\baps\anaconda3\lib\site-packages\sklearn\svm\_base.py:1242: ConvergenceWarning: Liblinear failed to converge, increase the number of iterations.
  warnings.warn(

Model Number: 8 with model DatepartRegression in generation 0 of 10
Epoch 1/50
```

So this is how you can predict the increase in the number of your followers on any social media platform. As a social media consumer, the number of followers you have may not be of interest to you, but as a content creator or as a businessman, the number of followers you have is important for your content for reaching more audience.

## THANK YOU!

**Github Link:** <https://github.com/anujtiwari21?tab=repositories> (<https://github.com/anujtiwari21?tab=repositories>)