Fake Social Media Profile Detection

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Introduction

- Social media is apart of our lives
- January 2019, 3.484 billion people actively use social media
- Who is the influencer?

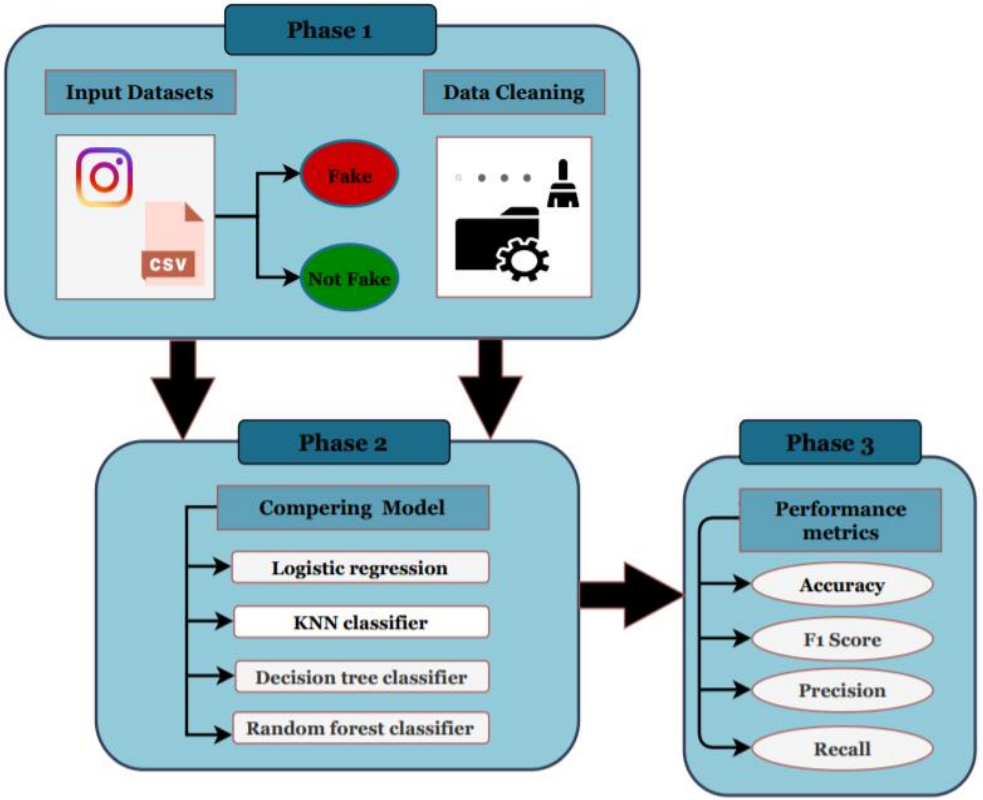
Objectives

- Find out the relationship between the features
- Project Idea : Classification of Fake/ not fake accounts using machine learning capabilities
- Test the model on real life influencers accounts
- Find out the number of followers

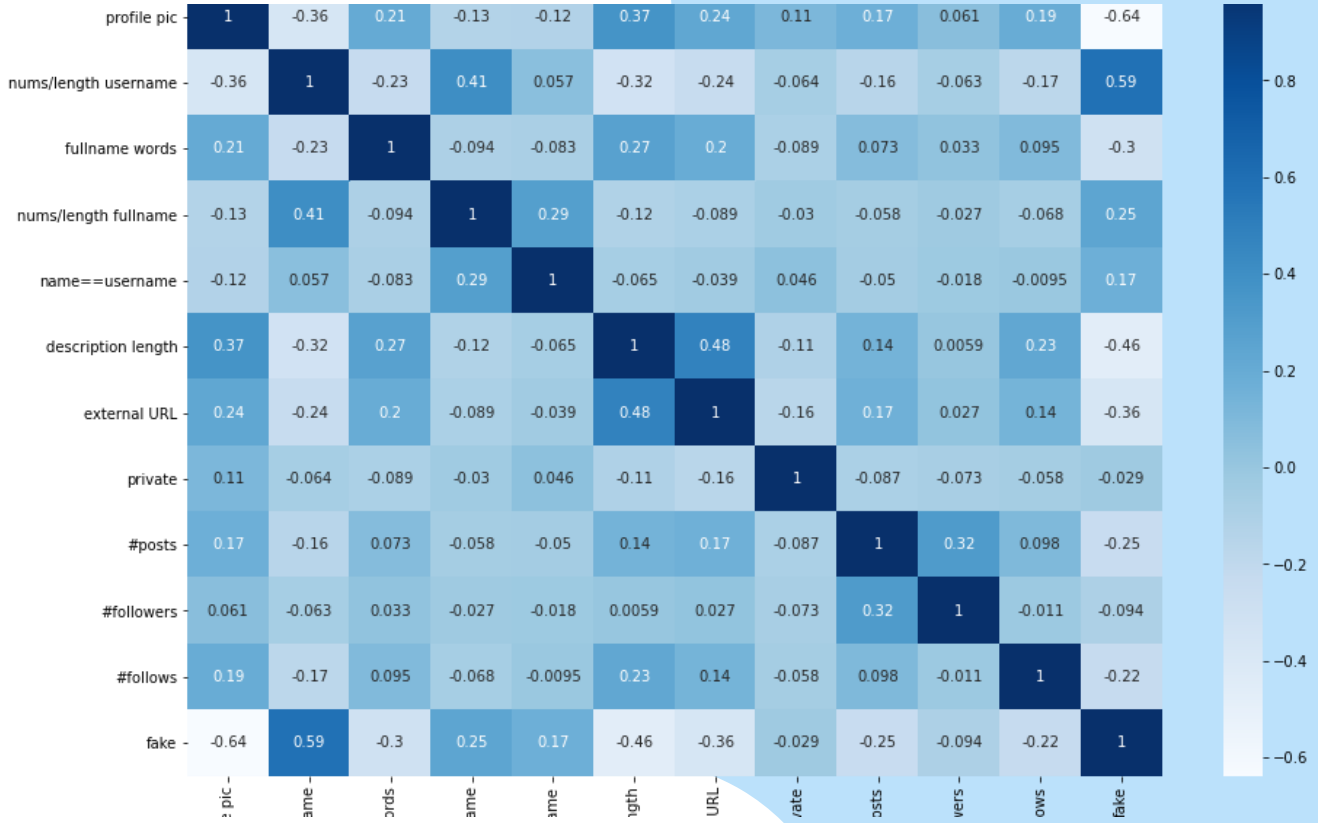
TOP SOCIAL NETWORKING SITES in 2020

Source: https://www.adobe.com/express/learn/blog/top-social-media-sites

Methodology



Correlation between features



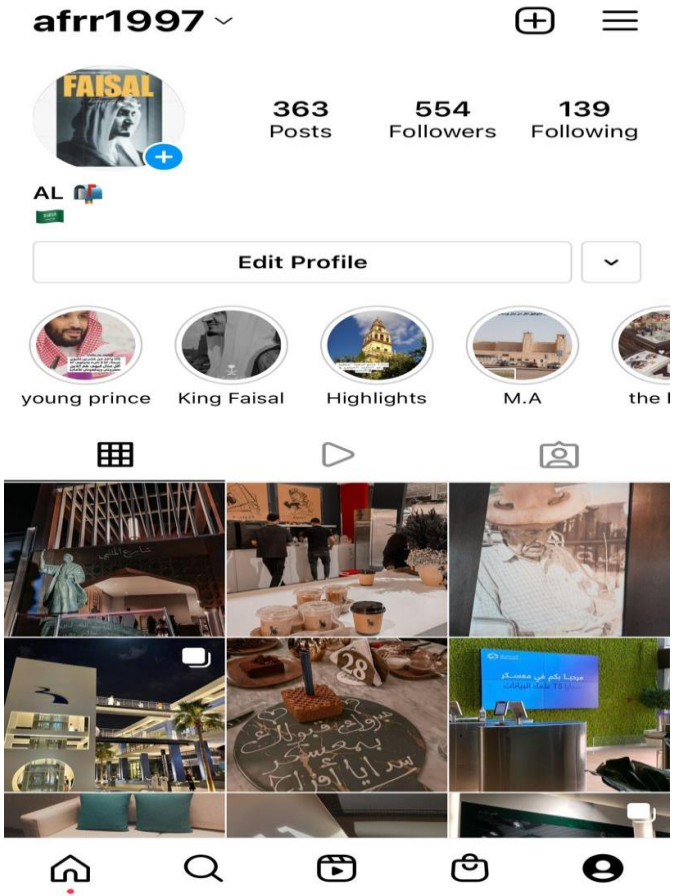
Evaluation

Accuracy Comparing

Classifier	Accuracy	Precision	Recall	F1-Score
Logistic Regression	0.908	0.95	0.876	0.912
KNN Classifier	0.866	0.833	0.877	0.854
Decision Tree Classifier	0.875	0.833	0.909	0.869
Random Forest Classifier	0.925	0.916	0.932	0.924

Apply the model on real life account

Real account



In [41]:
```
def login():
    username = input("username: ")
    password = getpass.getpass("password: ")
    api = Client(username, password)
    return api

api = login()
```

```
username: afrr1997
password: ·····
```

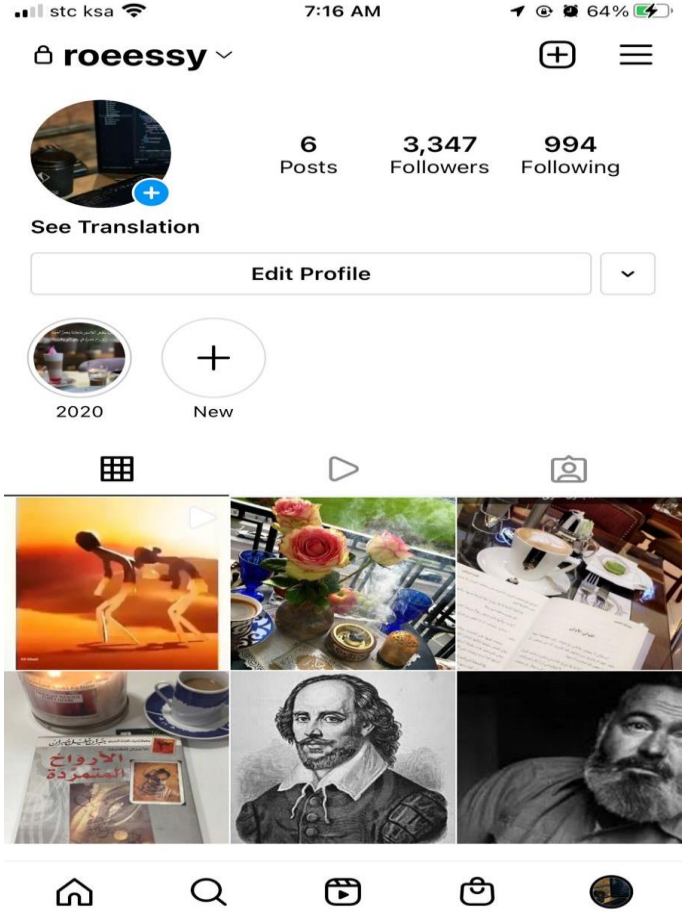
In [47]:
```
#Check the number of followers
len(followers)
```

Out[47]: 554

In [62]:
```
auth = (len(random_followers) - no_fakes) * 100 / len(random_followers)
print("User X's Instagram Followers is " + str(auth) + "% authentic.")
```

```
User X's Instagram Followers is 70.0% authentic.
```

Fake account




```
In [42]: def login():
             username = input("username: ")
             password = getpass.getpass("password: ")
             api = Client(username, password)
             return api

         api = login()
```

```
username: roeessy
password: ·····
```

```
In [48]: #Check the number of followers
         len(followers)
```

```
Out[48]: 3347
```

```
In [62]: auth = (len(random_followers) - no_fakes) * 100 / len(random_followers)
         print("User X's Instagram Followers is " + str(auth) + "% authentic.")
```

```
User X's Instagram Followers is 51.42857142857143% authentic.
```

Future work

- Apply the model on Facebook.
- Create an application to find real influencers.
- Use other analyzes of classification such as the classification of followers by geographic region or age group.

Thank you, any Question?