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# SC1015 MINI PROJECT



Fashion conversation  
data on Instagram

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# INSTAGRAM FASHION INSIGHTS



10K

5K

2K

1K

10

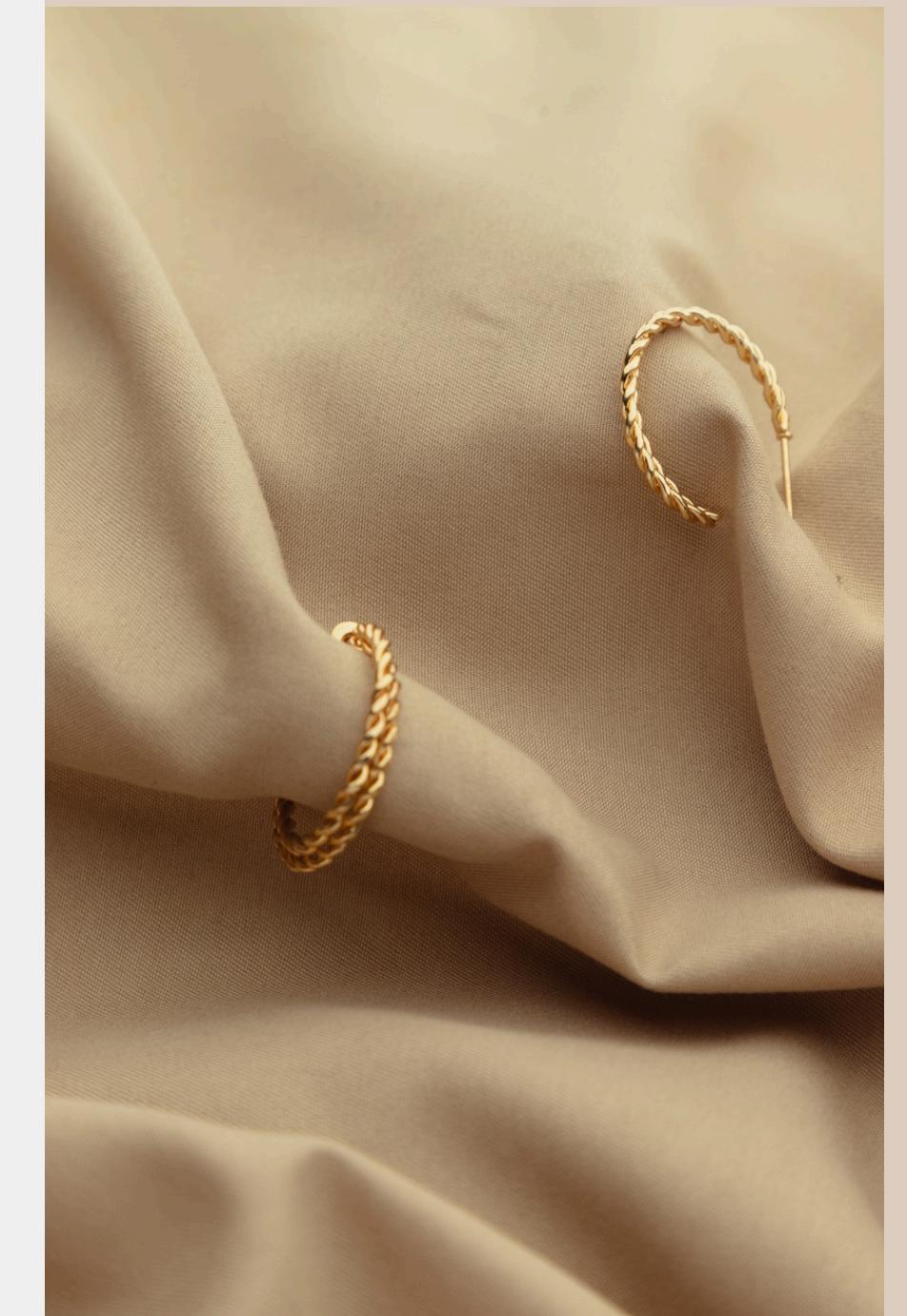
1

# Likes as a Response ✨



# PROBLEM STATEMENT

how do various predictor variables influence the number of likes on Instagram for fashion brands, and how can these insights help optimize marketing strategies across different categories?



#	Column	Non-Null Count	Dtype
0	Followings	24752	non-null float64
1	Followers	24752	non-null float64
2	MediaCount	24752	non-null int64
3	Likes	24752	non-null int64
4	Comments	24752	non-null int64
5	CreationTime	24752	non-null int64
6	Selfie	24752	non-null float64
7	BodySnap	24752	non-null float64
8	Marketing	24752	non-null float64
9	ProductOnly	24752	non-null float64
10	NonFashion	24752	non-null float64
11	Face	24752	non-null float64
12	Logo	24752	non-null float64
13	BrandLogo	24752	non-null float64
14	Smile	24752	non-null float64
15	Outdoor	24752	non-null float64
16	NumberOfPeople	24752	non-null float64
17	NumberOfFashionProduct	24752	non-null float64
18	Anger	24752	non-null float64
19	Contempt	24752	non-null float64
20	Disgust	24752	non-null float64
21	Fear	24752	non-null float64
22	Happiness	24752	non-null float64
23	Neutral	24752	non-null float64
24	Sadness	24752	non-null float64
25	Surprise	24752	non-null float64



Brand category	Brand name
Mega couture	burberry, cartier, chanel, gucci, hermes, louisvuitton, prada, tiffany
Small couture	brioni, brunellocucinelli, cesareattolini, ermenegildozegna, fabianafilippi, kiton, loropiana, nancygonzalez
Designer	acnestudios, alexandermcqueen, alexanderwang, coach, dvf, iro, isabelmarant, katespade, maisonmargiela, marcbymarcjacobs, marcjacobs, michaelkors, paulsmith, rebeccaminkoff, sandro, stellamccartney, theory, vince, viviennewestwood
High street	abercrombie, americanapparel, americaneagle, calvinklein, forever21, gap, hollister, jcrew, mango, topshop, uniqlo, urbanoutfitters, zara

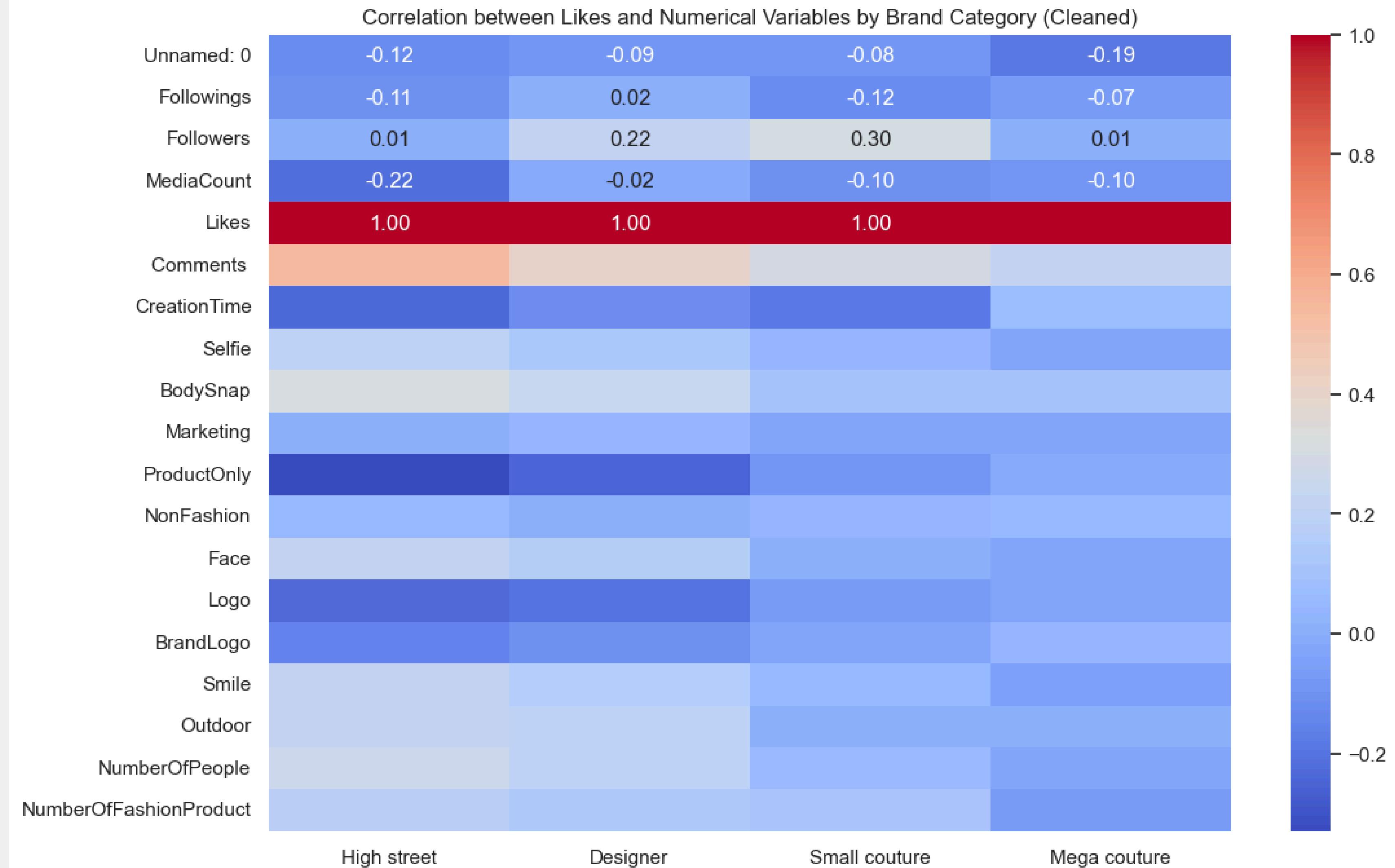


- 
- High Street
  - Designer
  - Mega Couture
  - Small Couture
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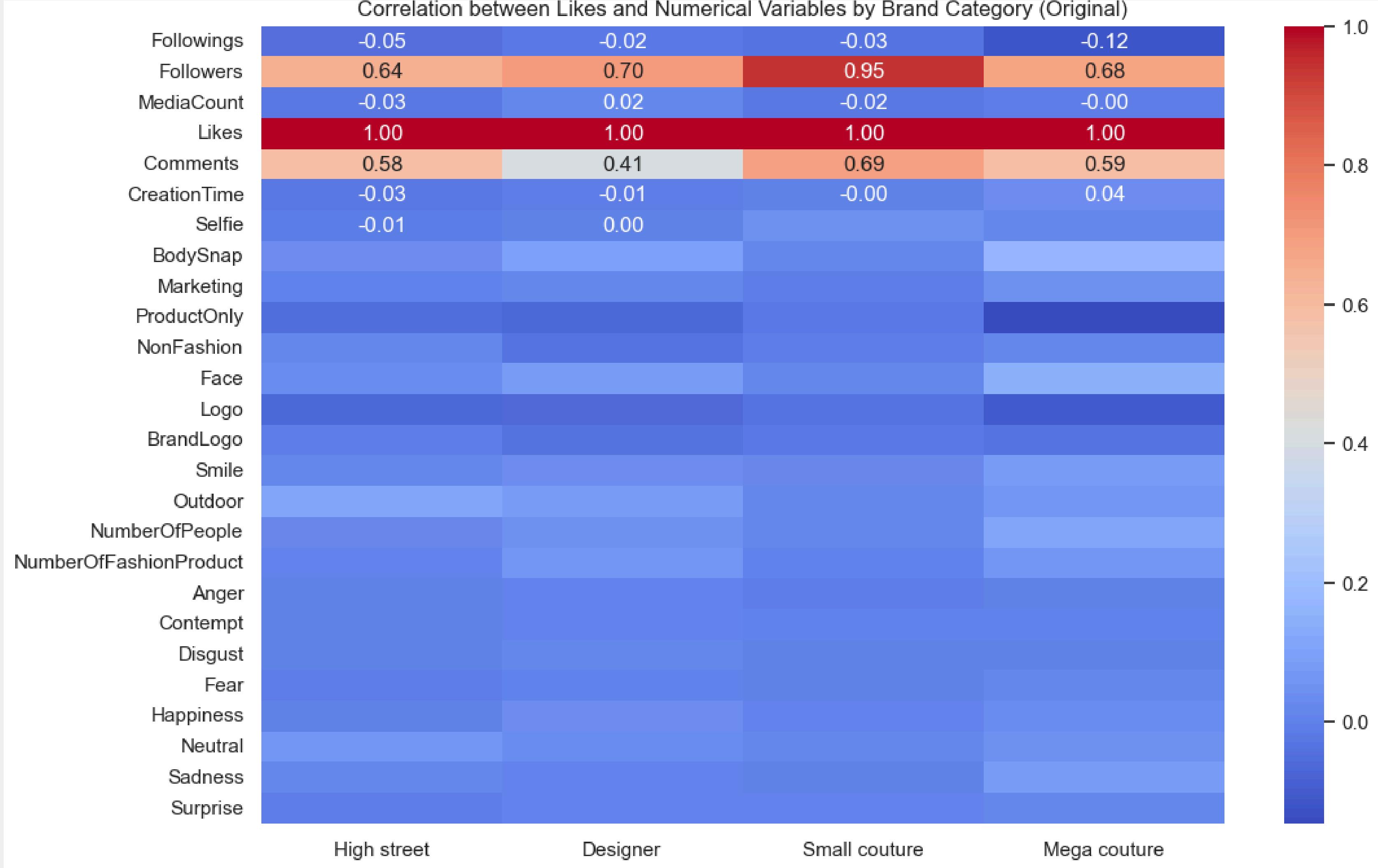
# EXPLORATORY DATA ANALYSIS

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# ANOMALY DETECTION

Correlations in High street:		Correlations in Designer:		Correlations in Small couture:		Correlations in Mega couture:	
Followings	-0.094736	Followings	-0.023915	Followings	-0.123634	Followings	-0.124736
Followers	0.448979	Followers	0.555847	Followers	0.693111	Followers	0.406086
MediaCount	-0.077368	MediaCount	-0.027484	MediaCount	-0.124994	MediaCount	-0.031557
Comments	0.432710	Comments	0.376767	Comments	0.349417	Comments	0.473899
CreationTime	-0.059124	CreationTime	-0.016701	CreationTime	-0.008810	CreationTime	0.040876
Selfie	-0.011907	Selfie	-0.018161	Selfie	0.000513	Selfie	0.011864
BodySnap	0.079994	BodySnap	0.132217	BodySnap	0.121743	BodySnap	0.109647
Marketing	-0.017298	Marketing	-0.029826	Marketing	-0.003035	Marketing	0.036611
ProductOnly	-0.062694	ProductOnly	-0.075977	ProductOnly	-0.113689	ProductOnly	-0.140632
NonFashion	-0.015148	NonFashion	-0.041170	NonFashion	-0.011414	NonFashion	0.068020
Face	0.033731	Face	0.039662	Face	0.026782	Face	0.087704
Logo	-0.120049	Logo	-0.103182	Logo	-0.146613	Logo	-0.041188
BrandLogo	-0.035380	BrandLogo	-0.061685	BrandLogo	-0.066299	BrandLogo	0.039227
Smile	0.002259	Smile	0.027278	Smile	0.009926	Smile	0.060901
Outdoor	0.136631	Outdoor	0.098754	Outdoor	0.048550	Outdoor	0.054004
NumberOfPeople	0.037889	NumberOfPeople	0.024852	NumberOfPeople	0.045043	NumberOfPeople	0.087659
NumberOfFashionProduct	0.052558	NumberOfFashionProduct	0.068938	NumberOfFashionProduct	0.070763	NumberOfFashionProduct	0.016547
Anger	0.003882	Anger	-0.005613	Anger	-0.011390	Anger	-0.002373
Contempt	-0.006837	Contempt	0.006370	Contempt	-0.001417	Contempt	0.001836
Disgust	-0.008509	Disgust	-0.006526	Disgust	-0.009775	Disgust	0.003564
Fear	-0.004998	Fear	-0.002957	Fear	-0.012806	Fear	0.012162
Happiness	0.002164	Happiness	0.001540	Happiness	0.002284	Happiness	0.030114
Neutral	0.027914	Neutral	0.001732	Neutral	-0.002966	Neutral	0.014835
Sadness	-0.004237	Sadness	0.000177	Sadness	-0.009812	Sadness	0.007640
Surprise	-0.003179	Surprise	-0.000883	Surprise	-0.003984	Surprise	0.011390



Top correlations for High street:

Followers    0.643606

Comments    0.583350

Top correlations for Designer:

Followers    0.701463

Comments    0.412699

Top correlations for Small couture:

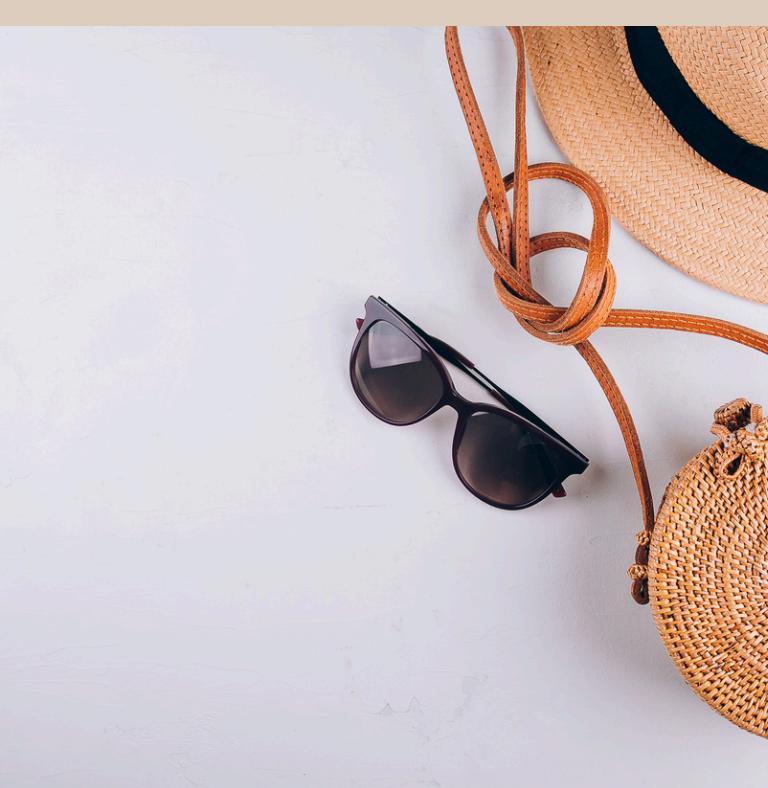
Followers    0.946084

Comments    0.689398

Top correlations for Mega couture:

Followers    0.678127

Comments    0.588612



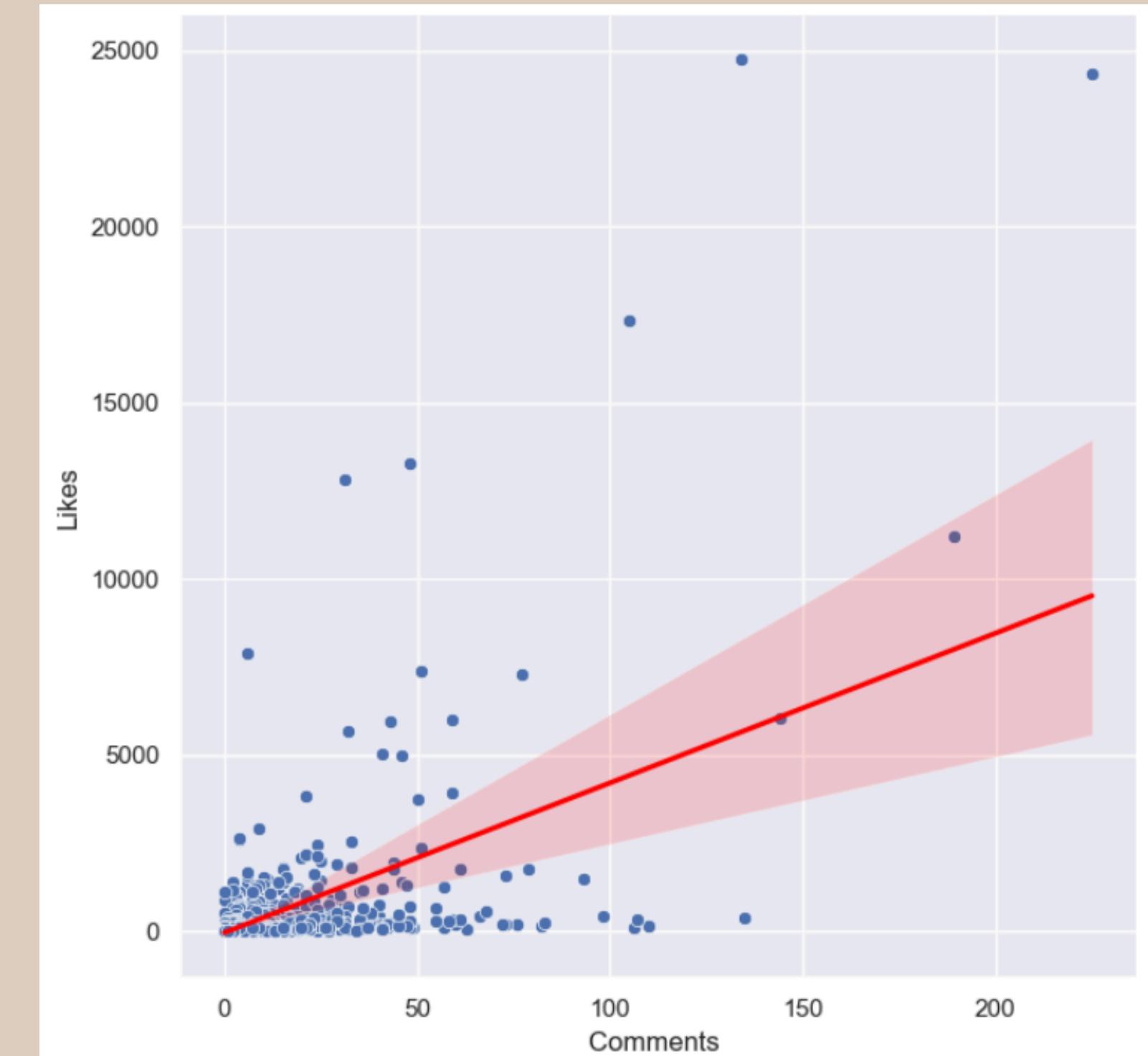
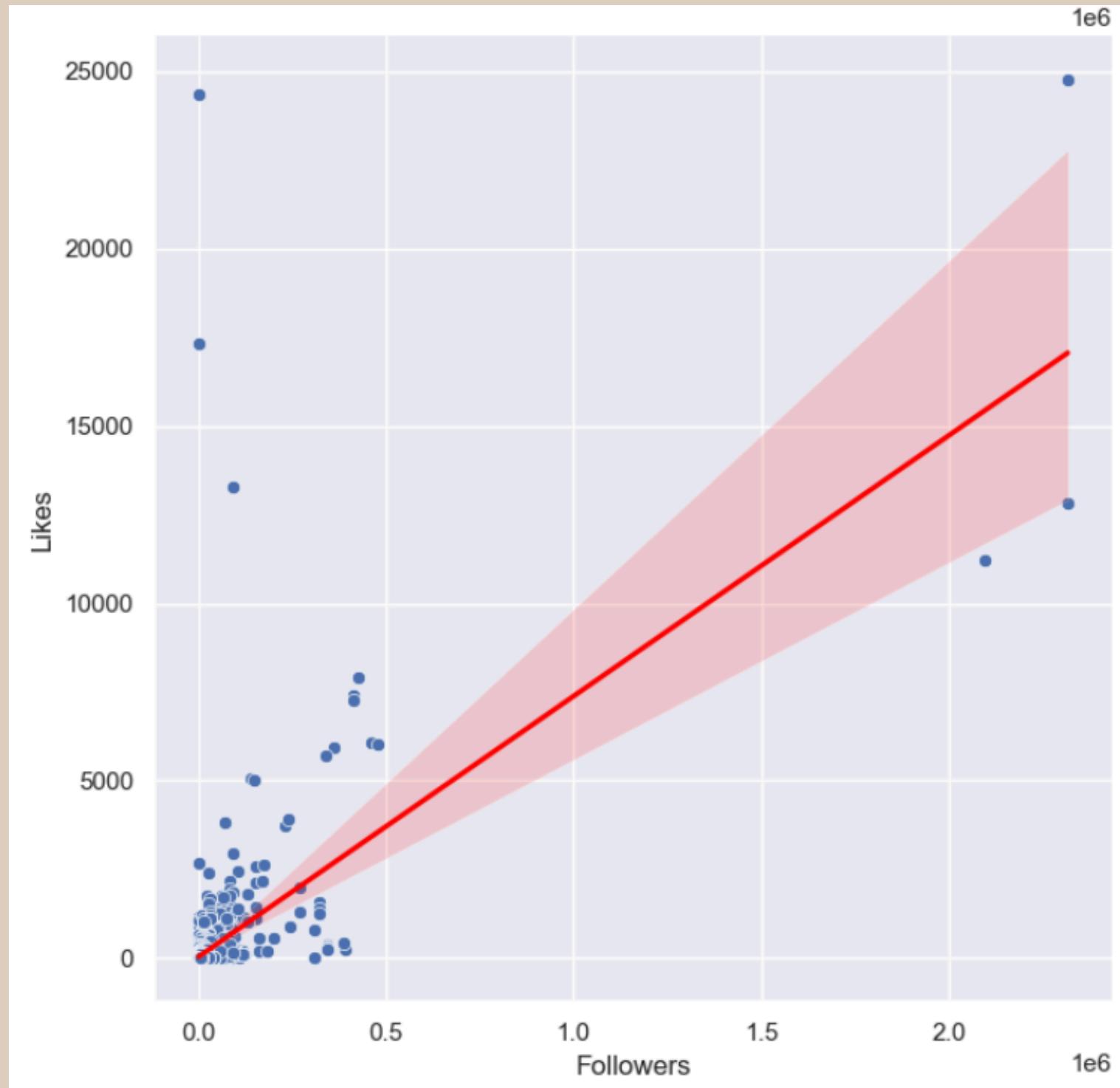
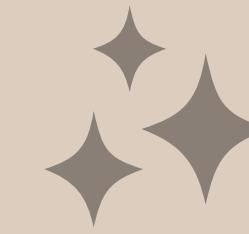
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# INSIGHTS OF RAW DATA

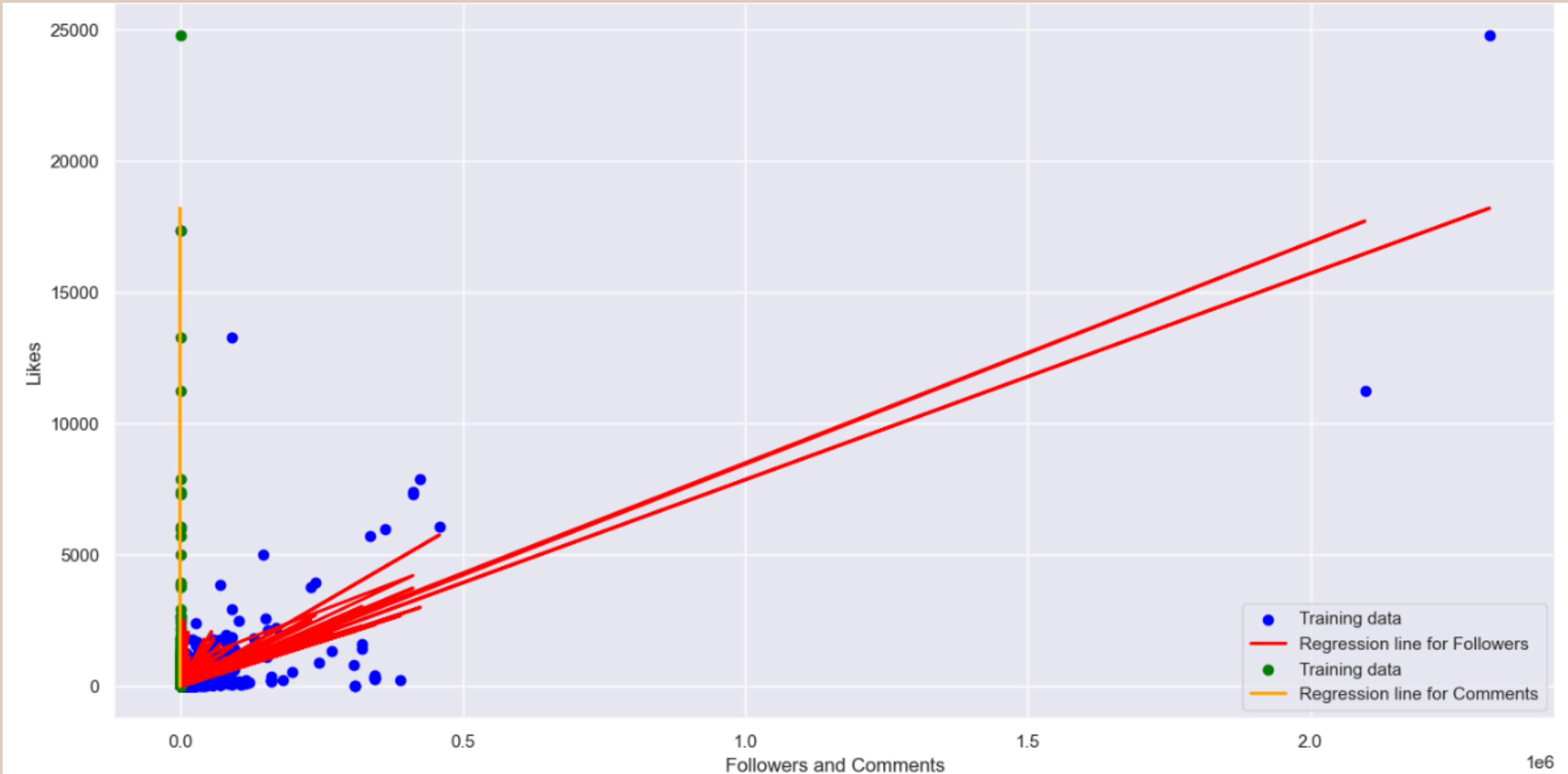
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# hIGH STREET

bivariate statistics

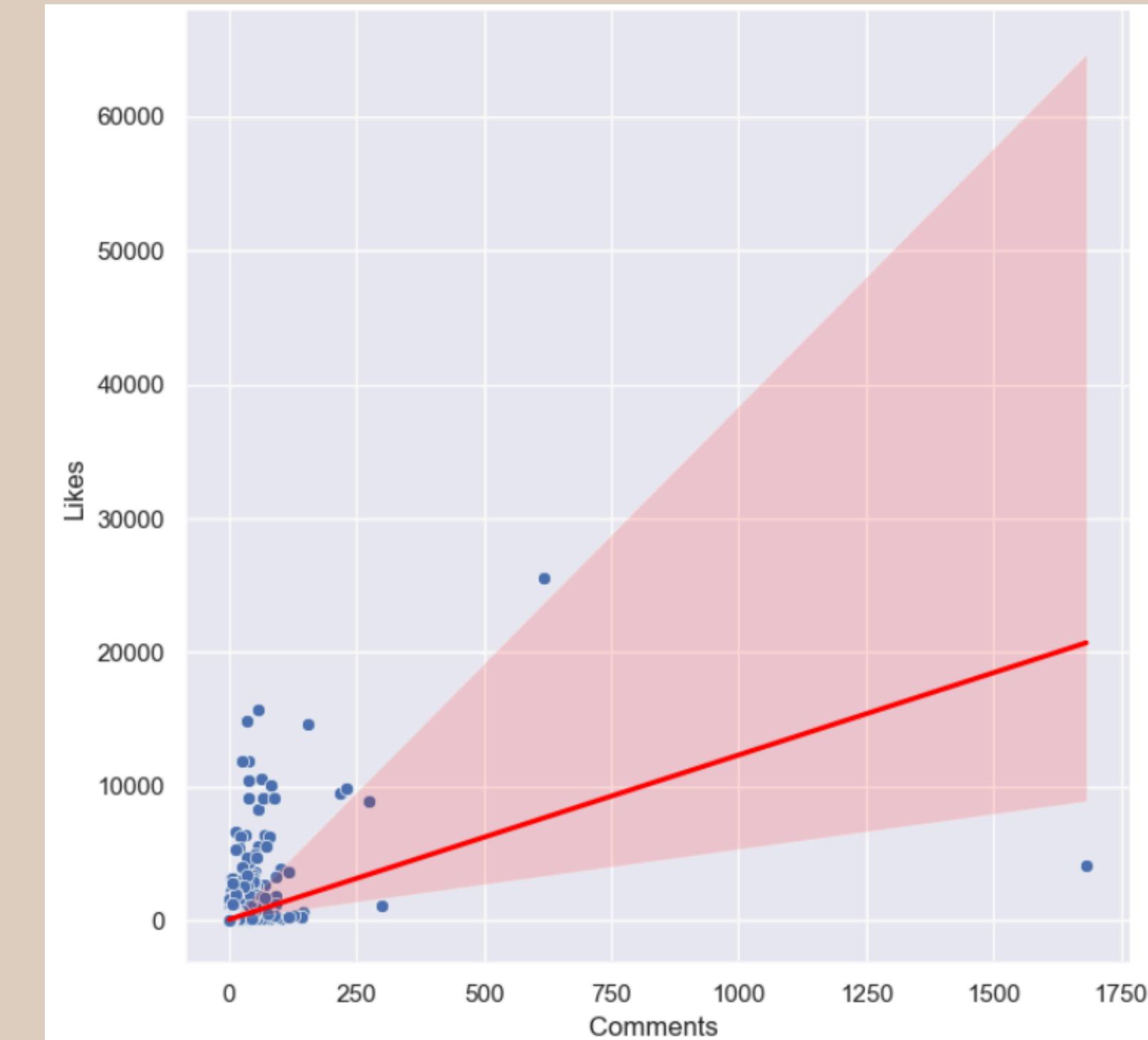
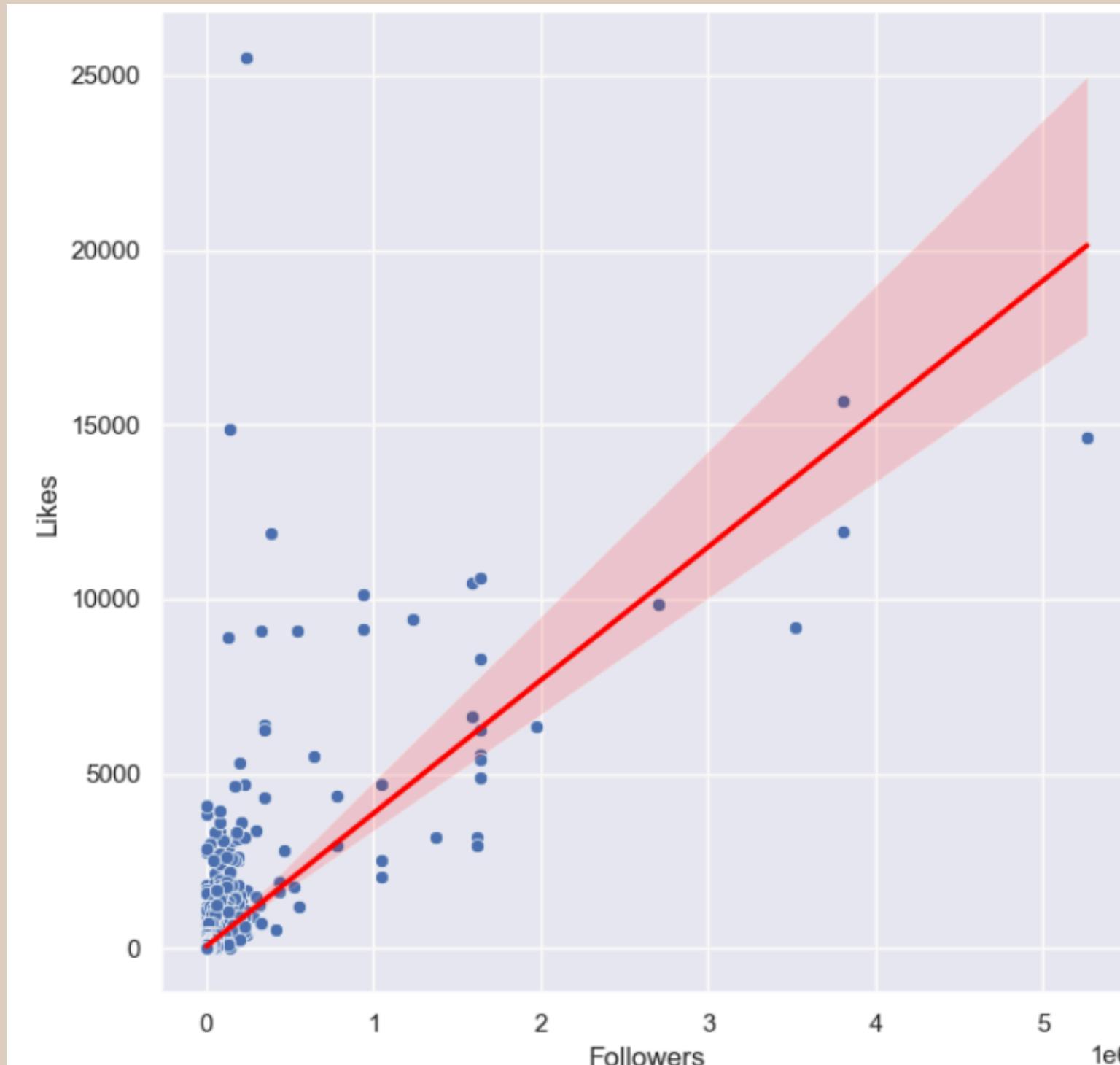


# MULTIVARIATE REGRESSION MODELS

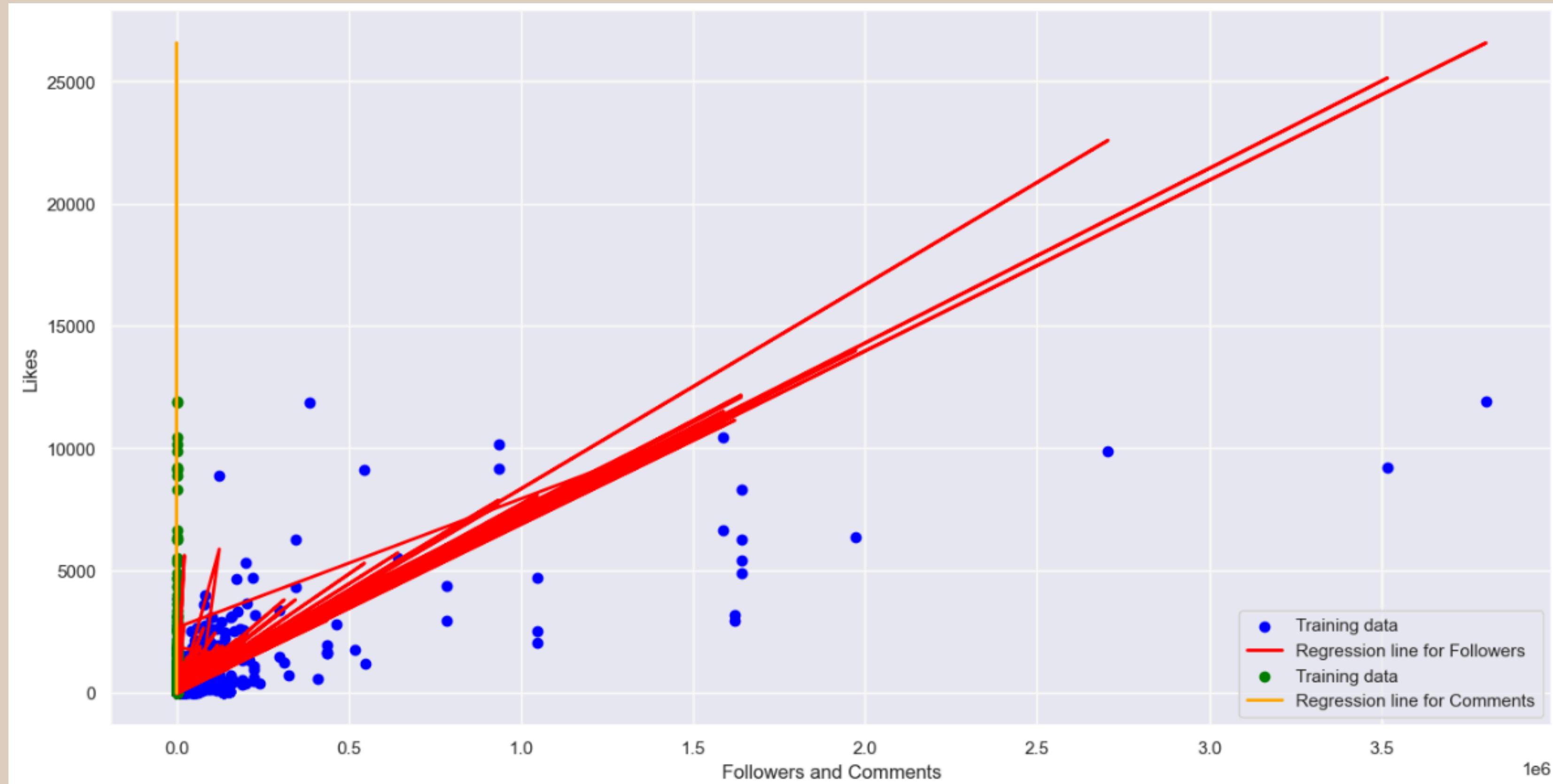


# DESIGNER

bivariate statistics

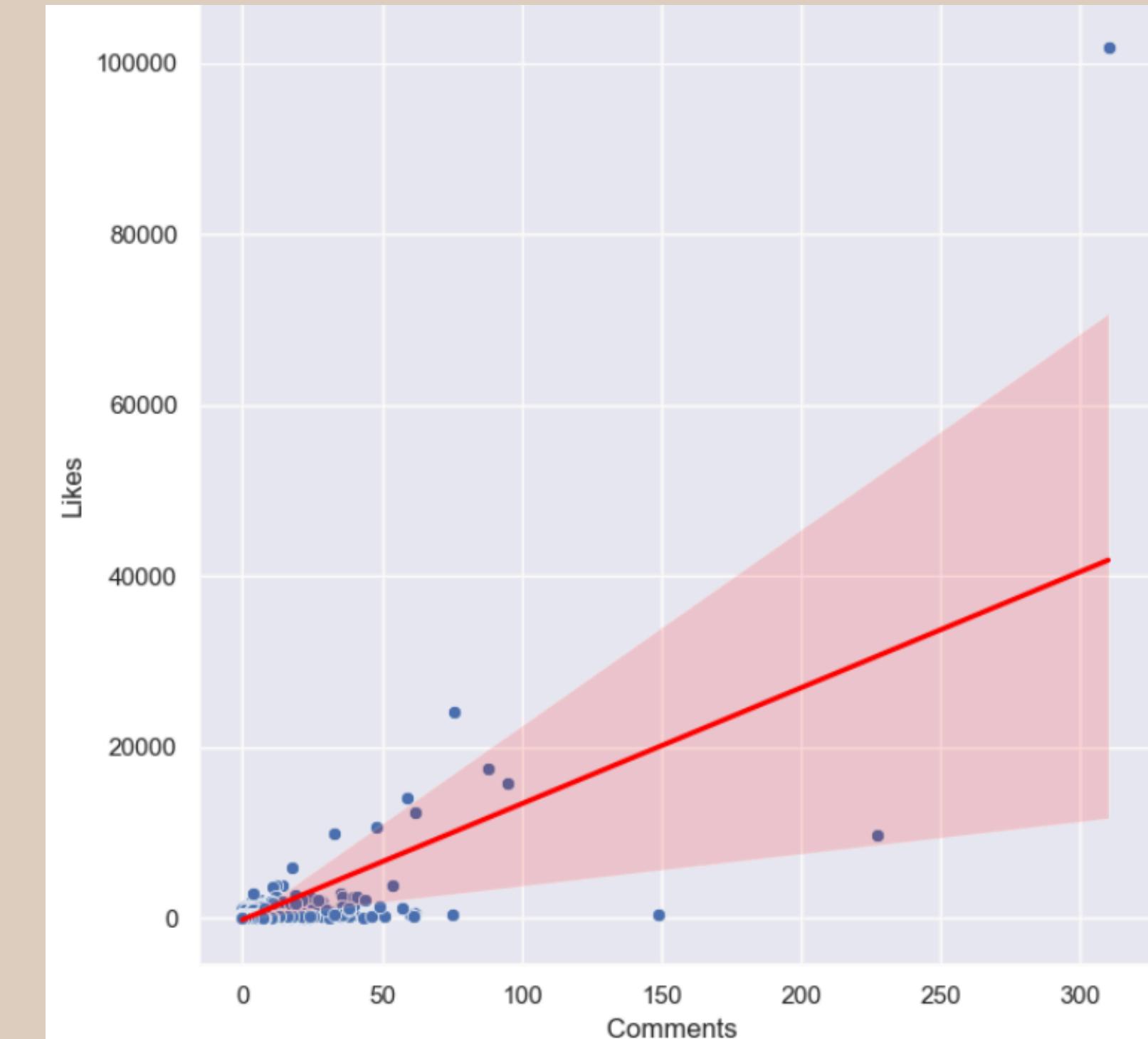
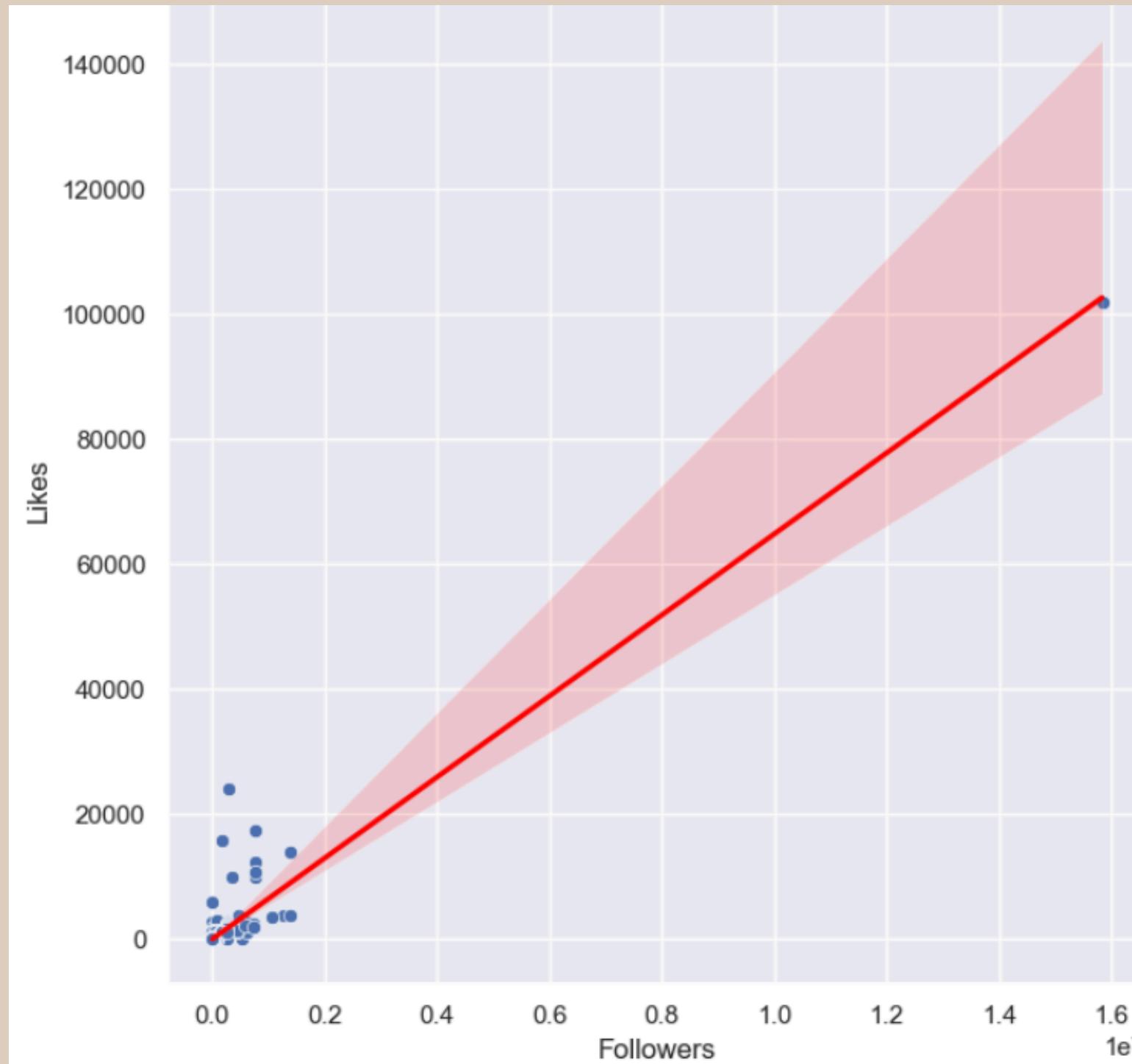


# MULTIVARIATE REGRESSION MODELS

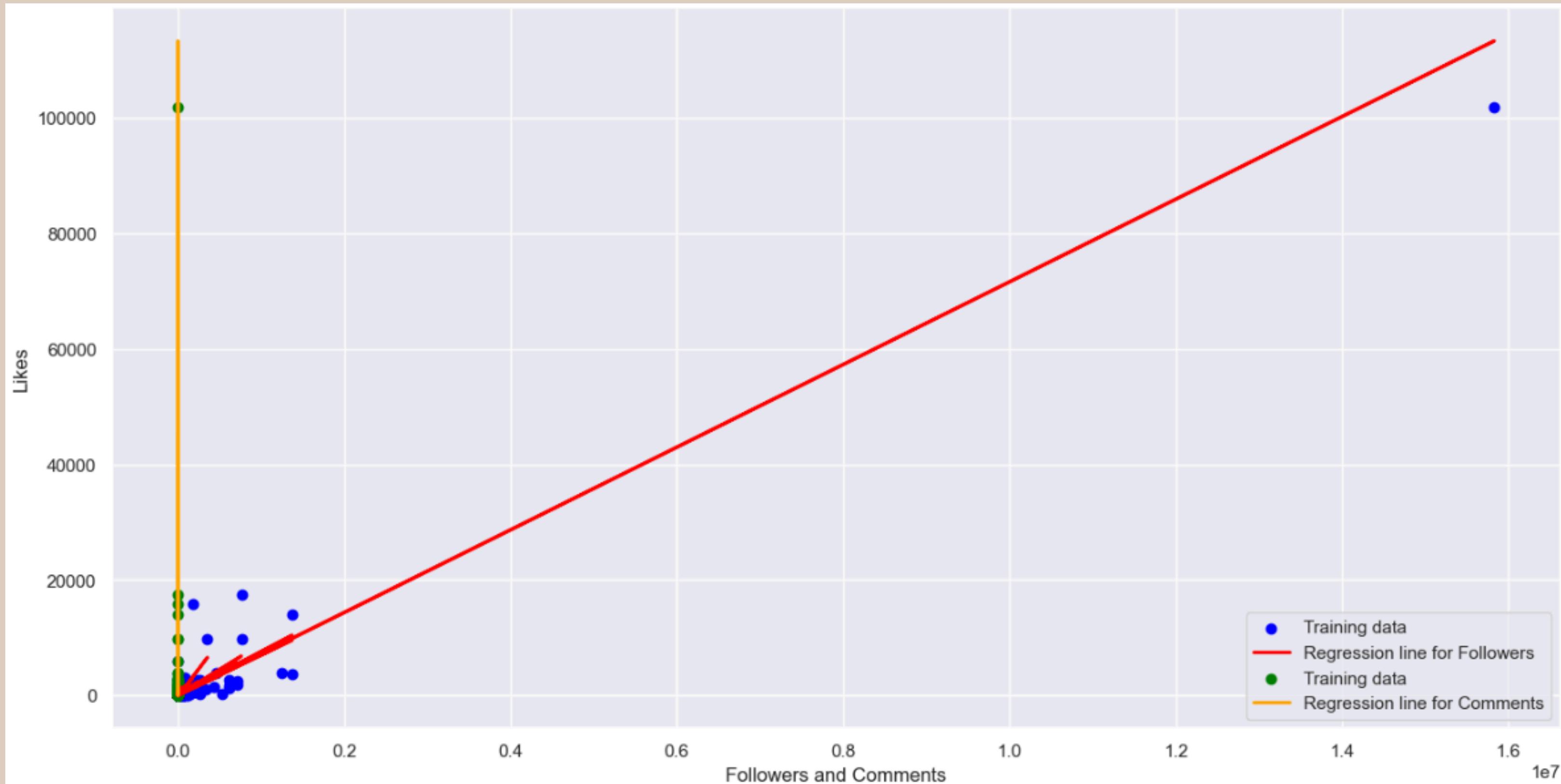
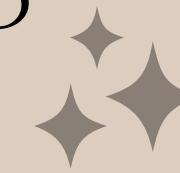


# SMALL COUTURE

bivariate statistics



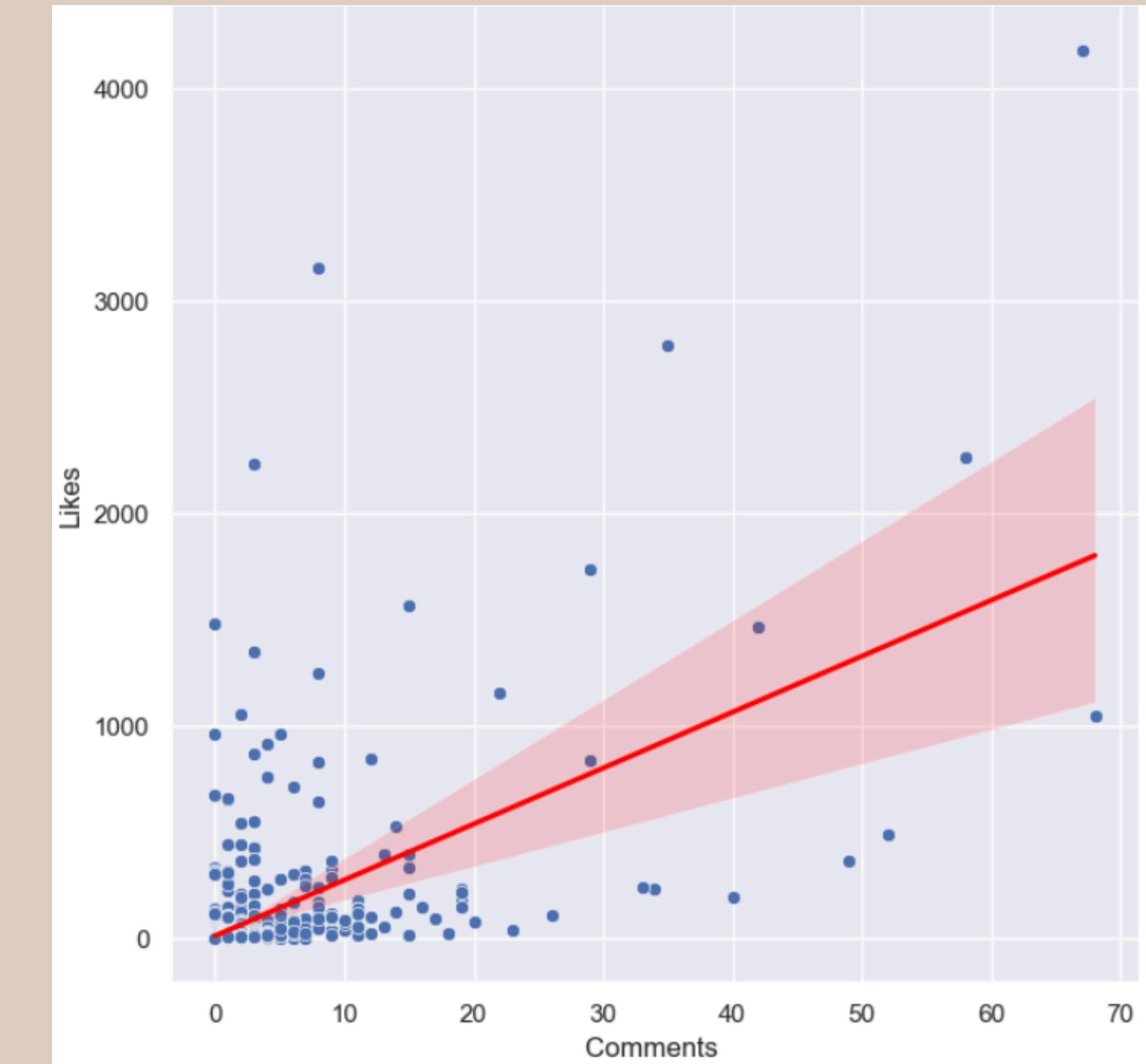
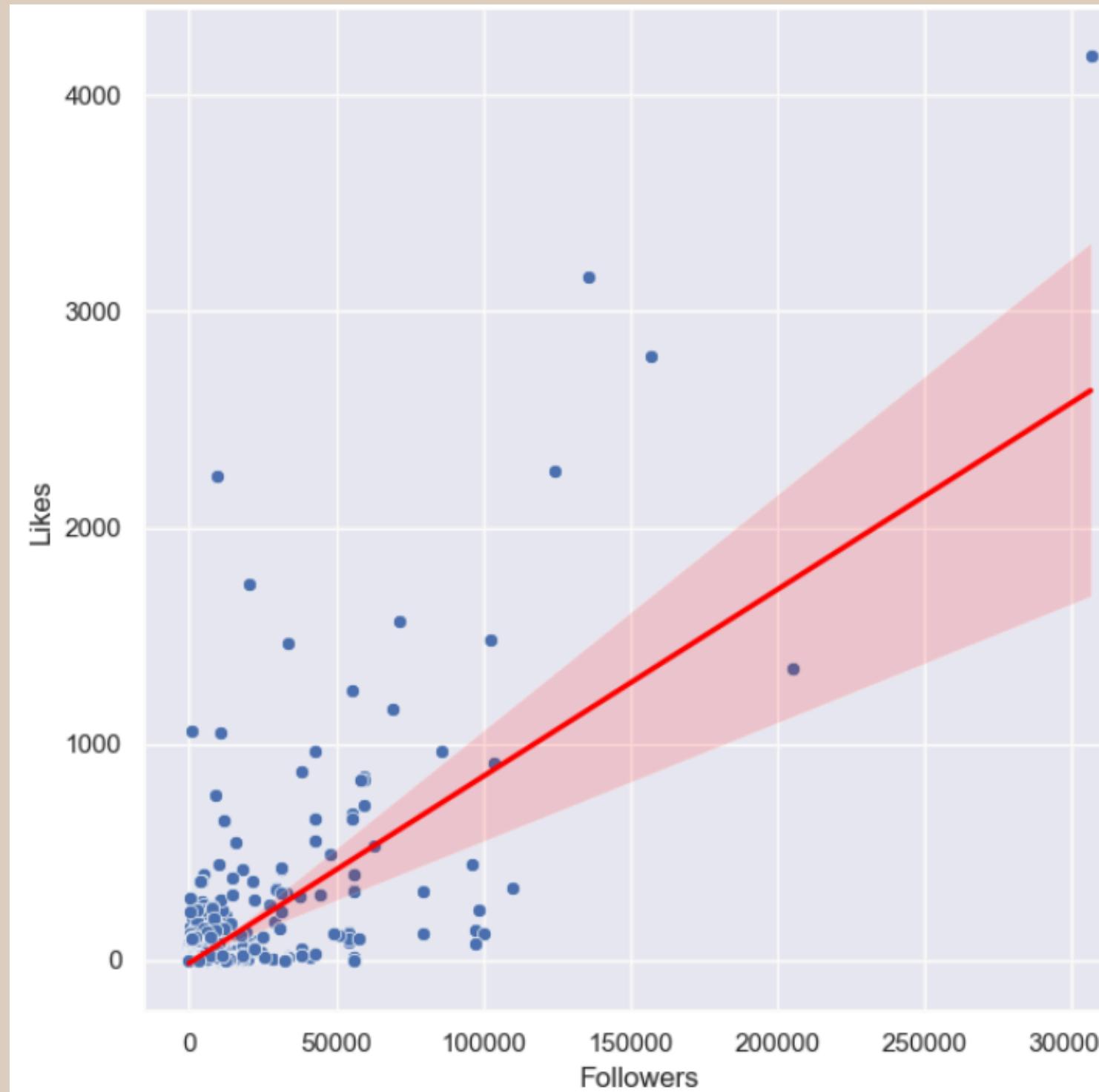
# MULTIVARIATE REGRESSION MODELS



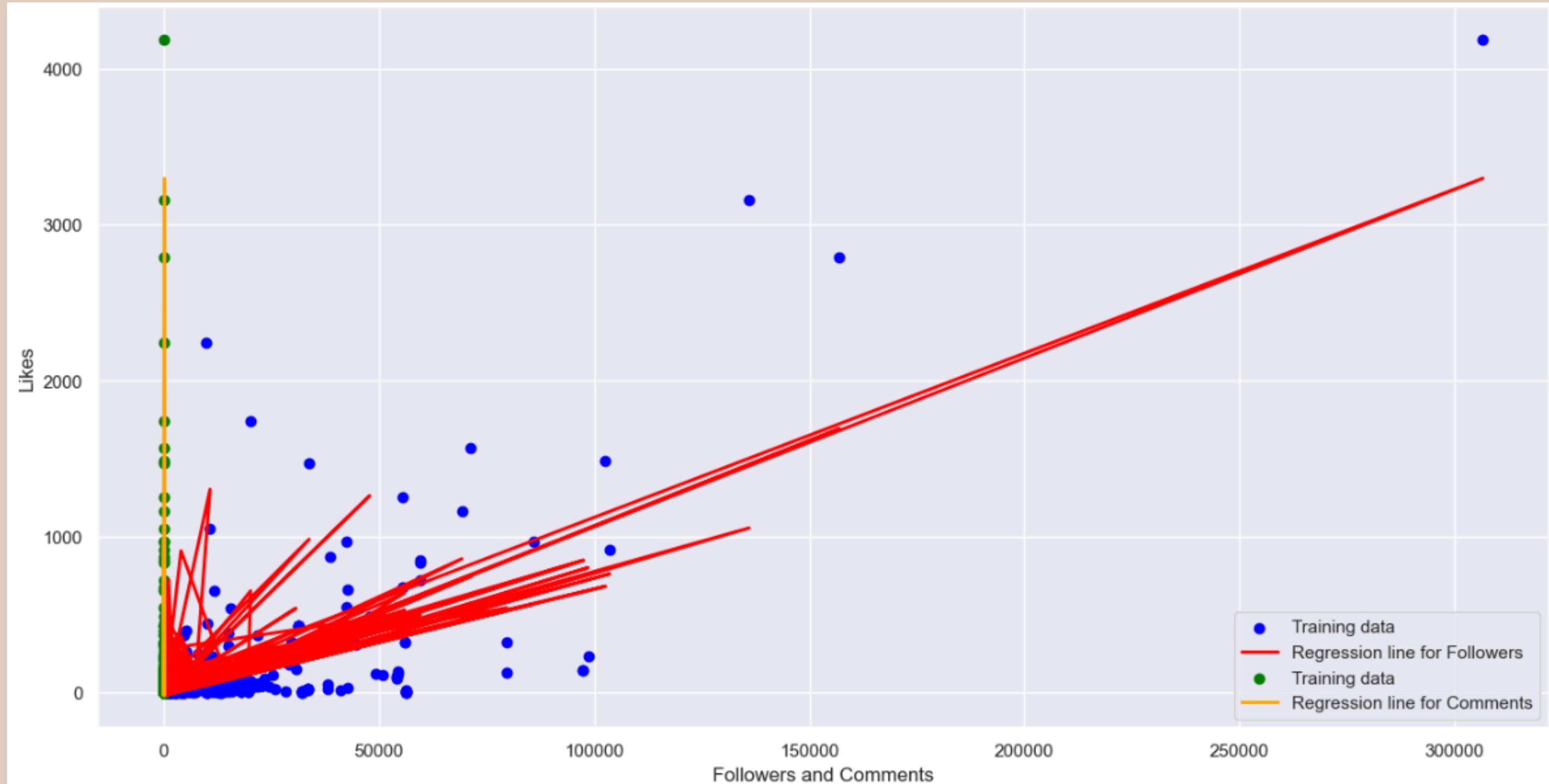
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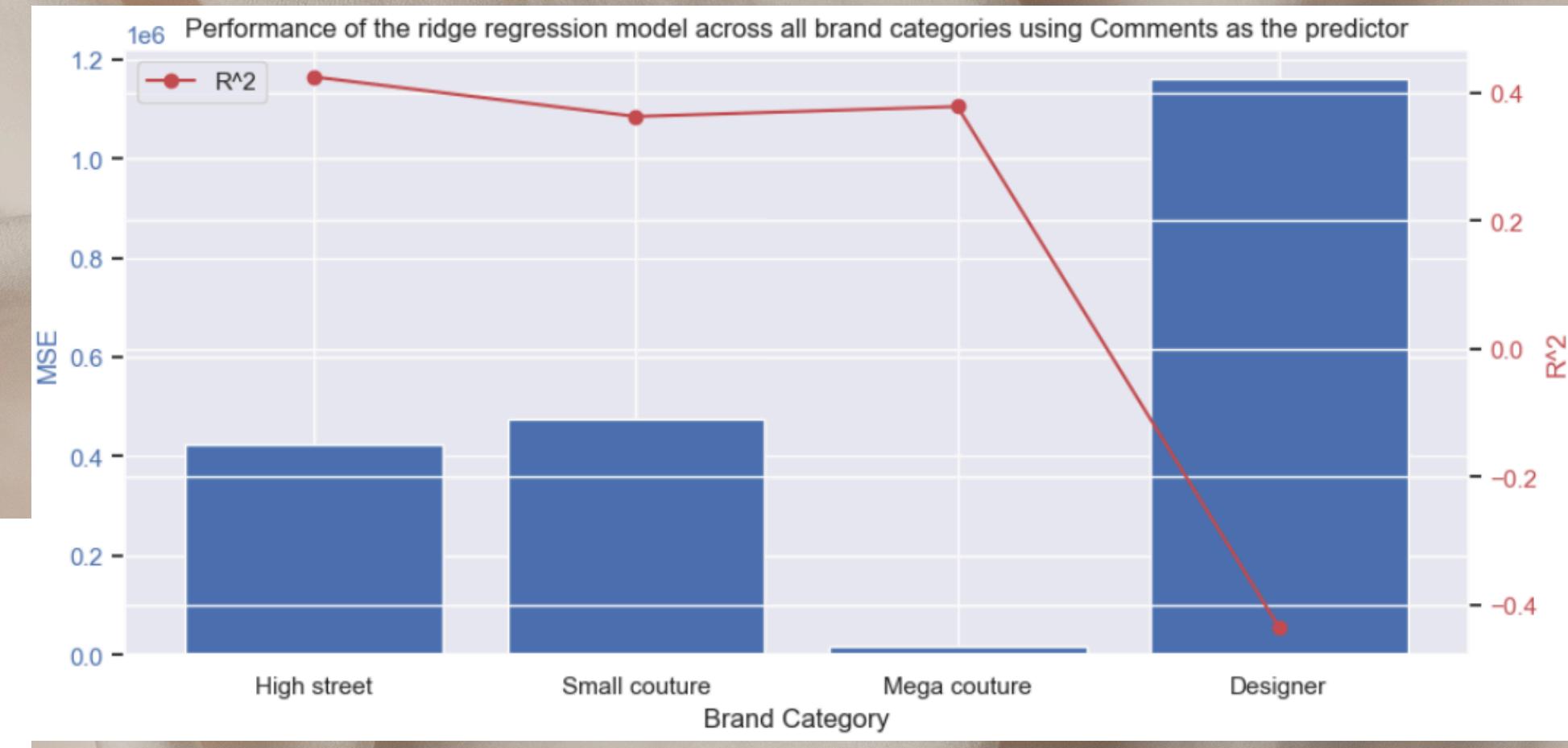
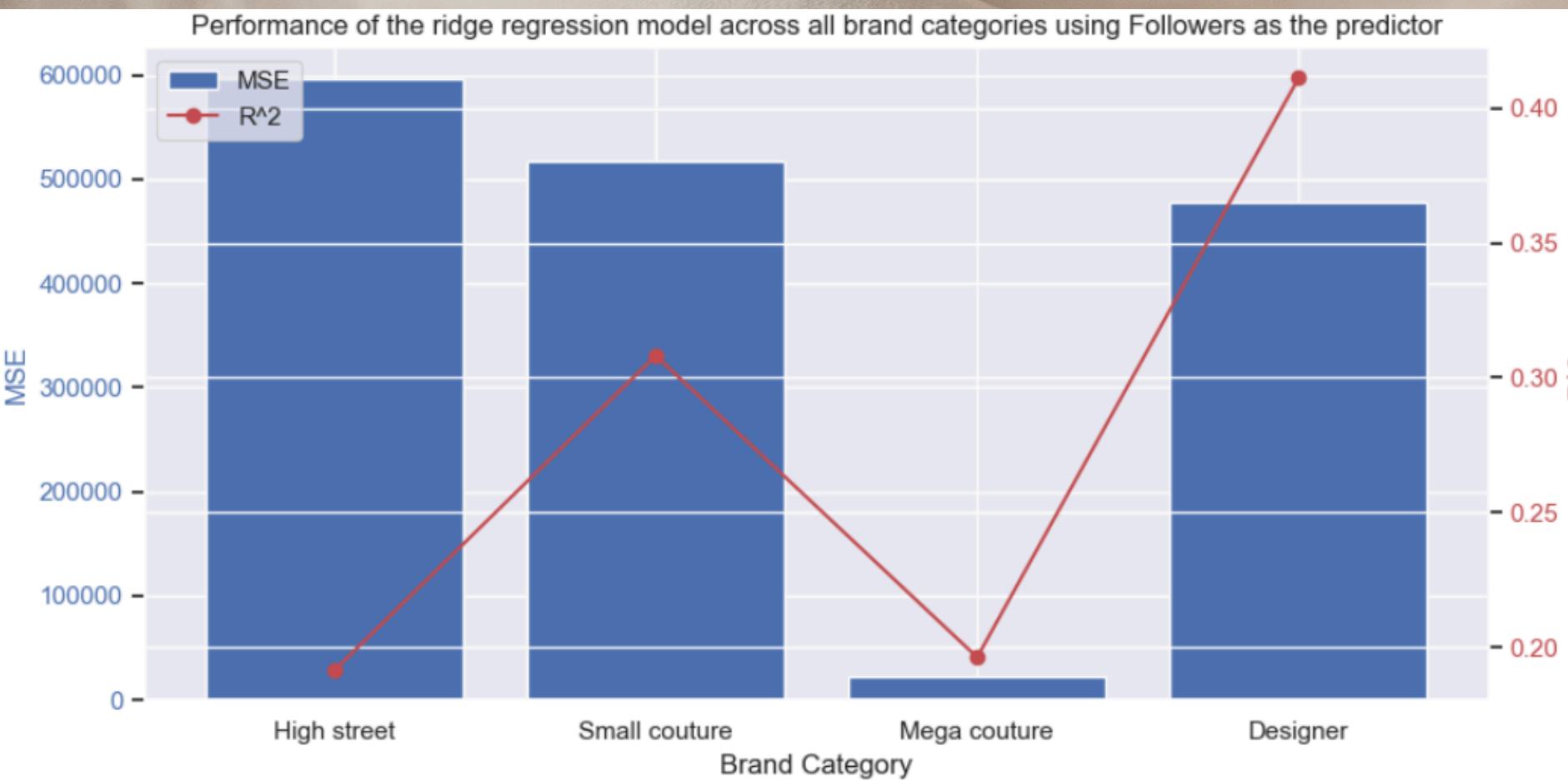
## bivariate statistics



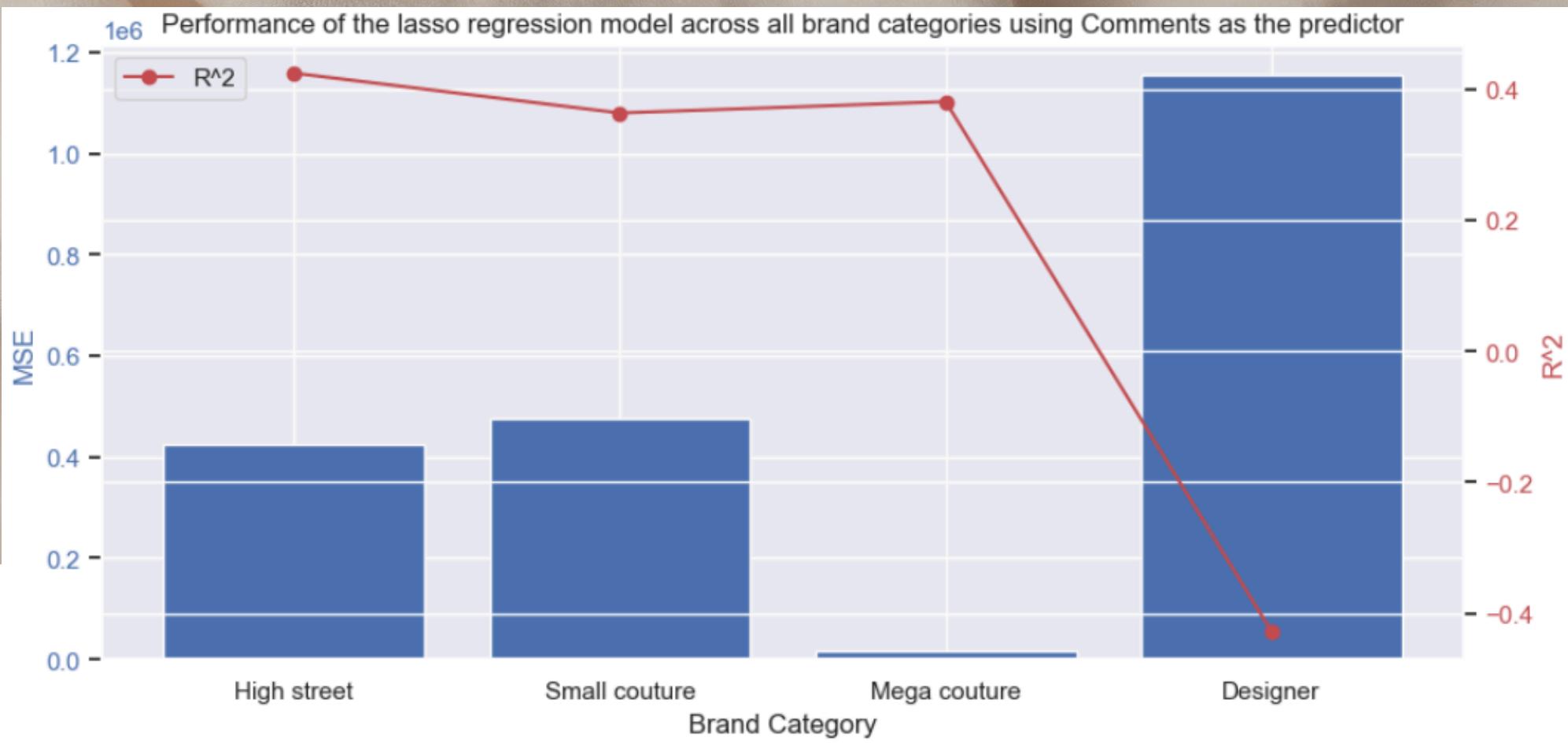
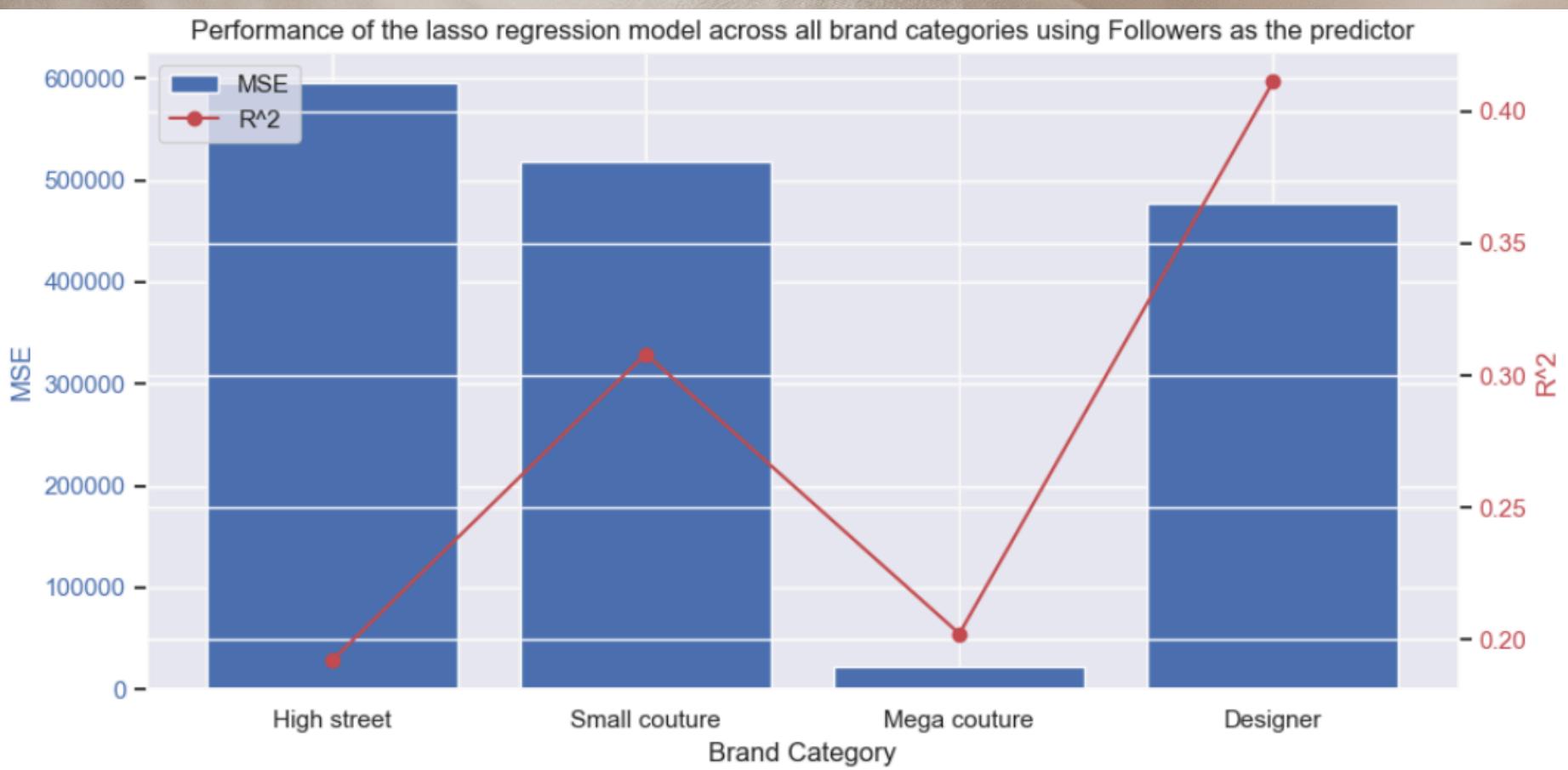
# MULTIVARIATE REGRESSION MODELS



# RIDGE REGRESSION MODEL



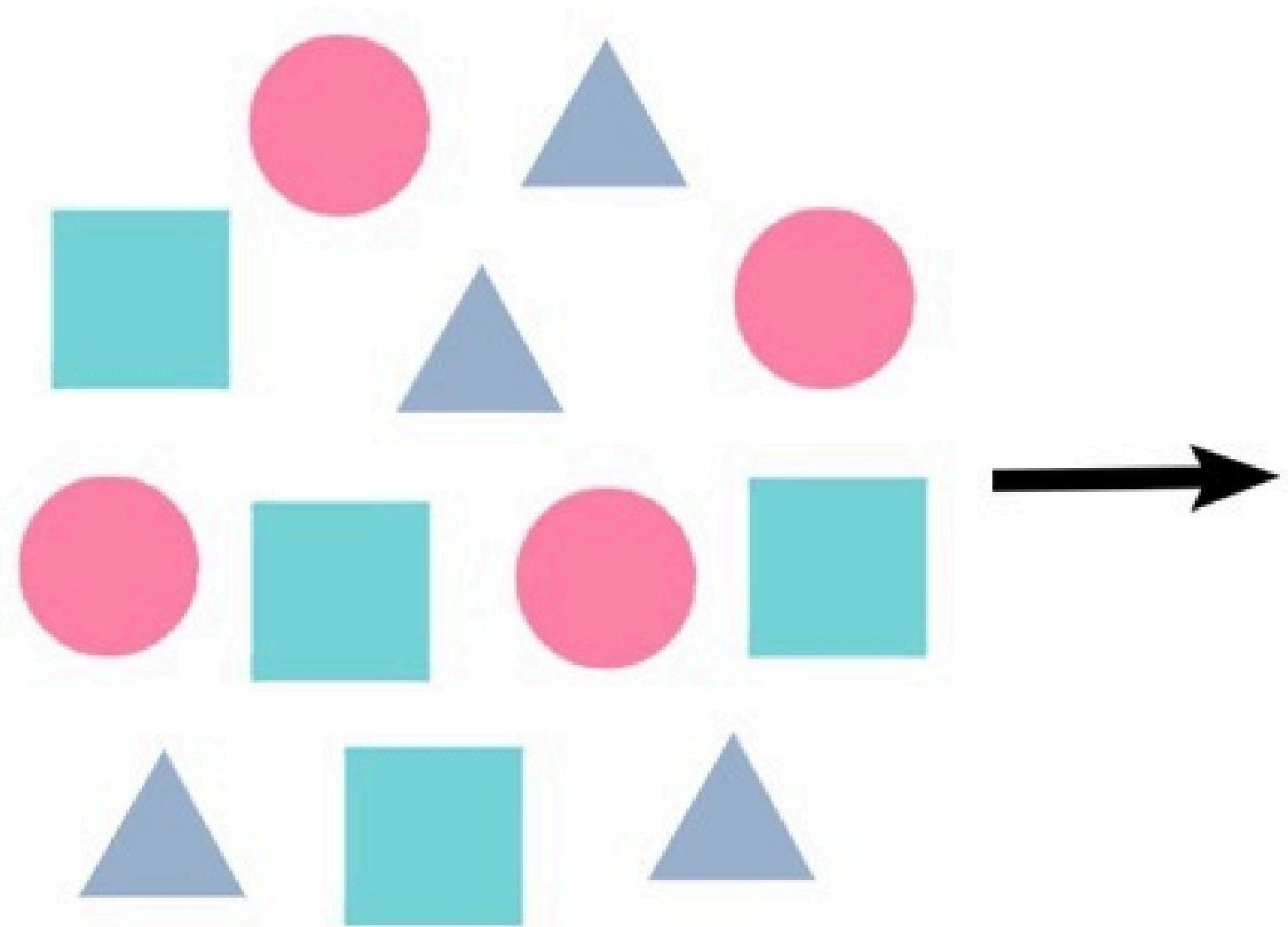
# LASSO REGRESSION MODEL



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# CLUSTERING

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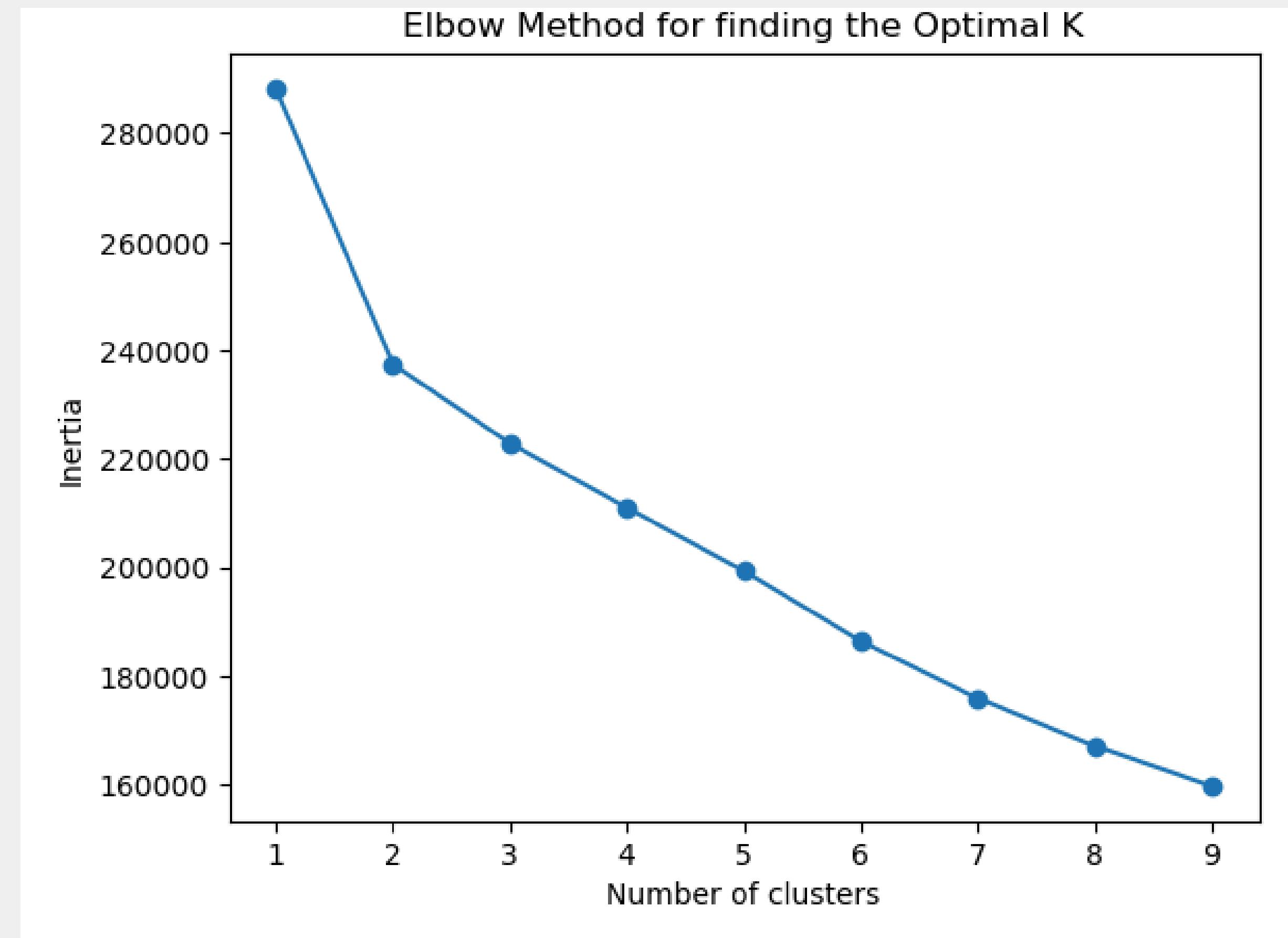


Clustering

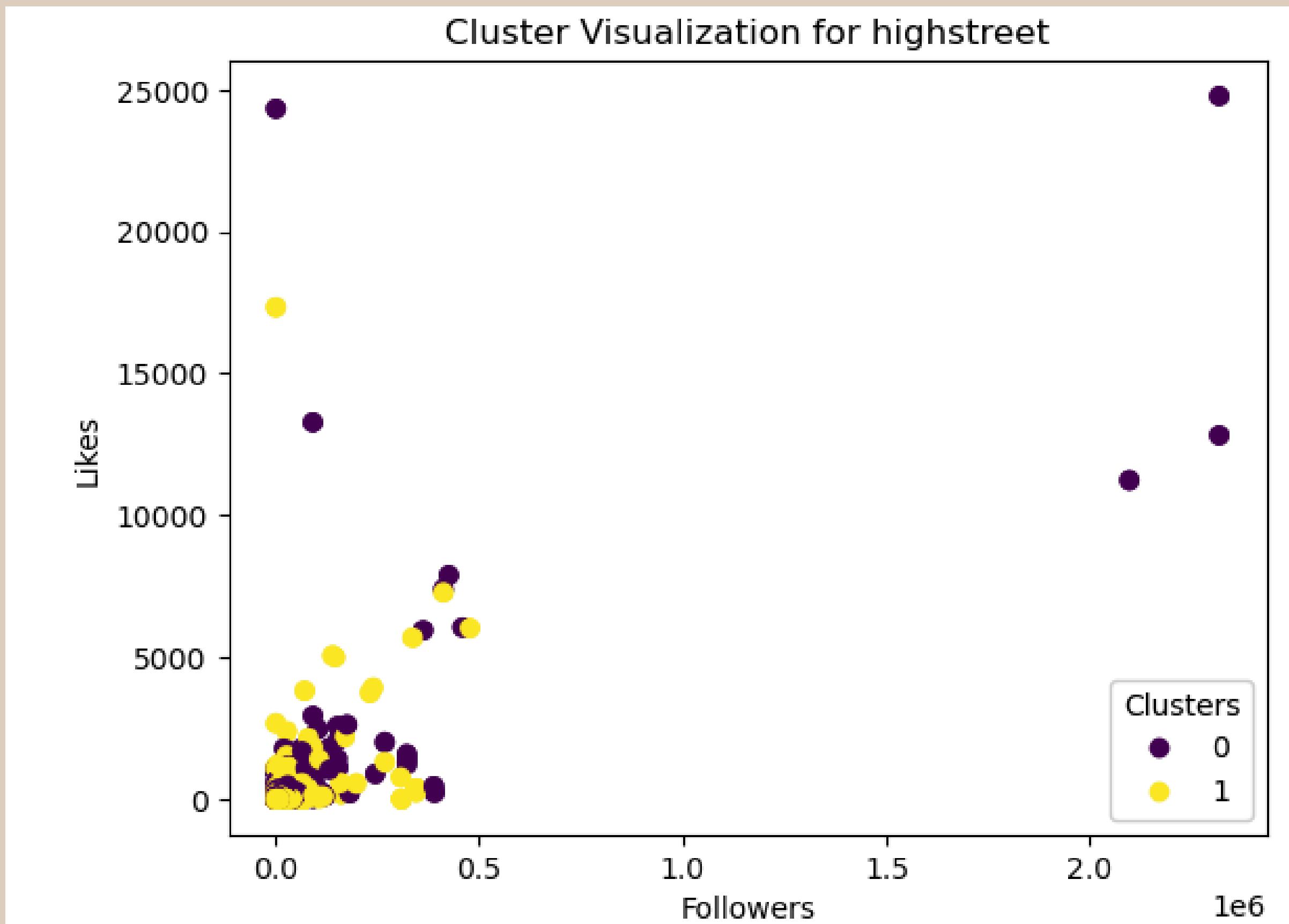
Cluster 1

Cluster 2

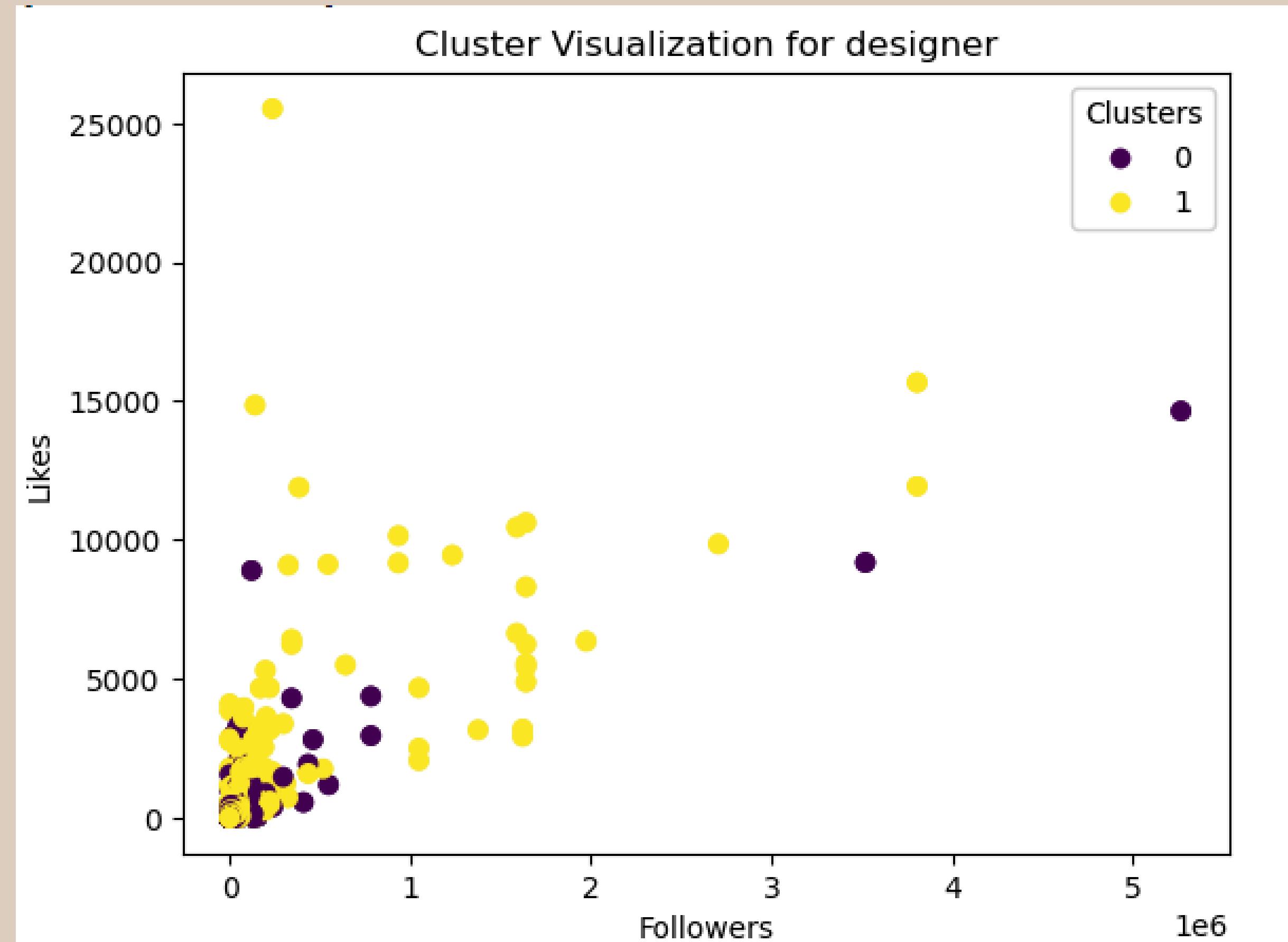
Cluster 3



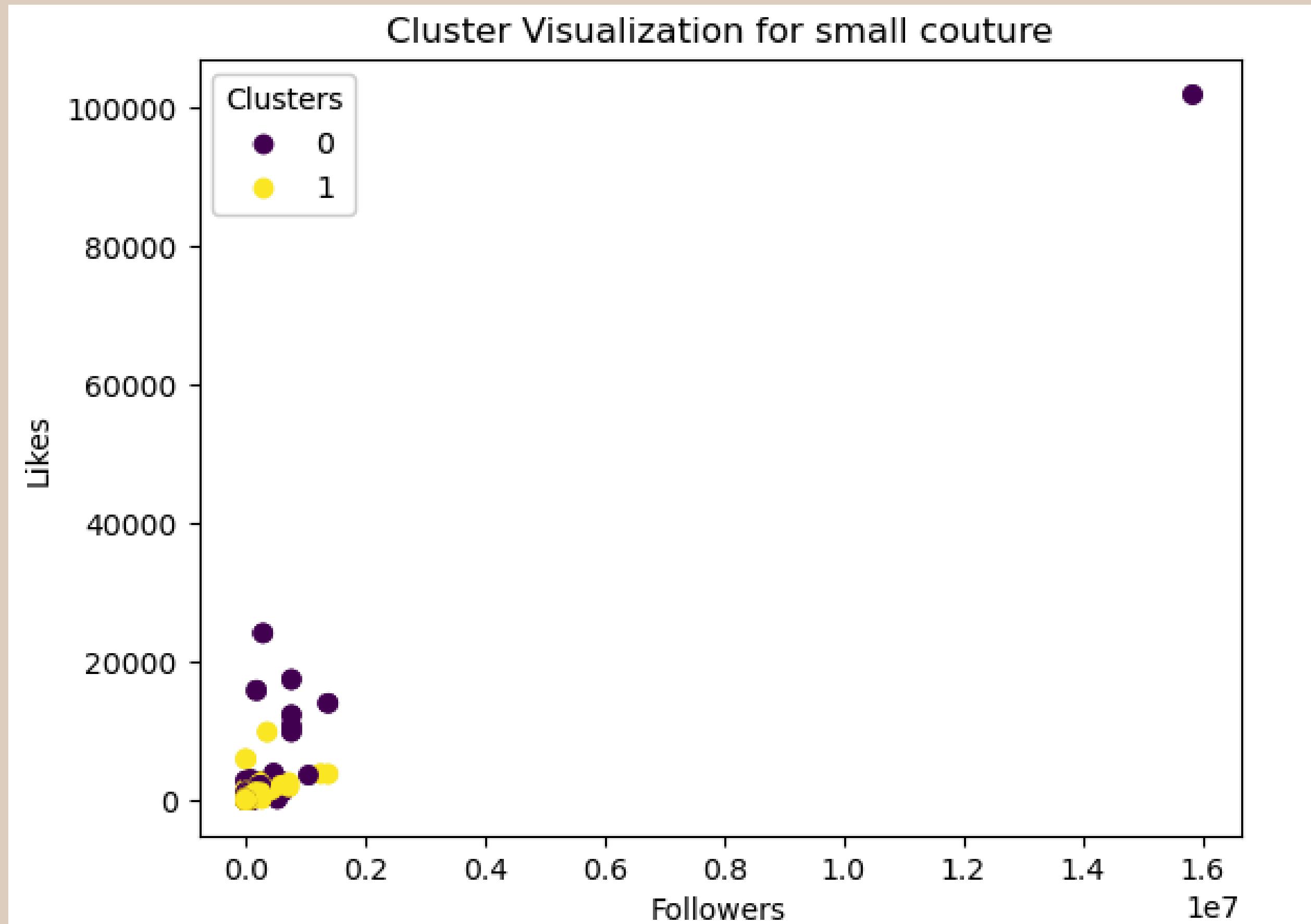
# HIGH STREET



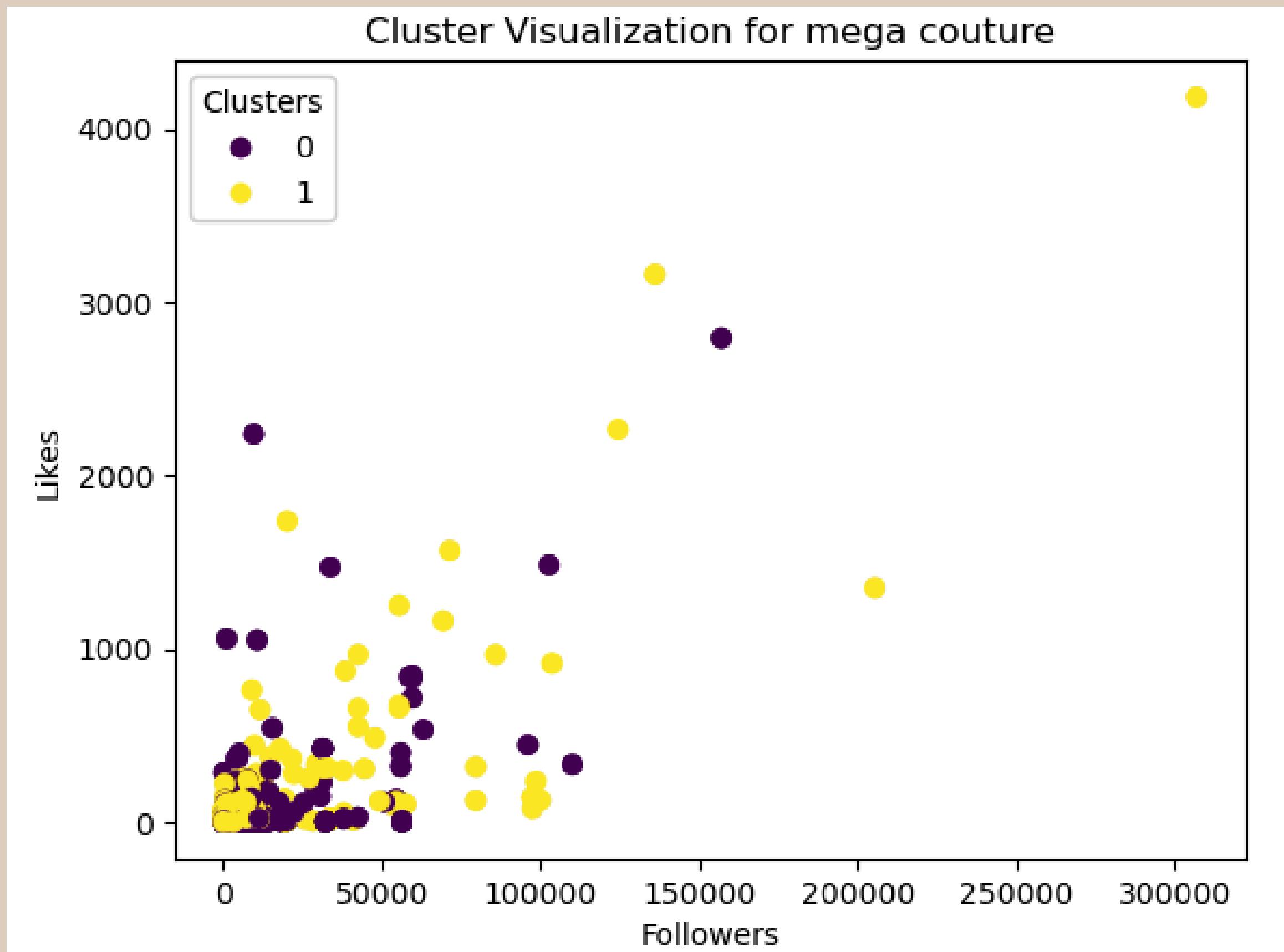
# DESIGNER

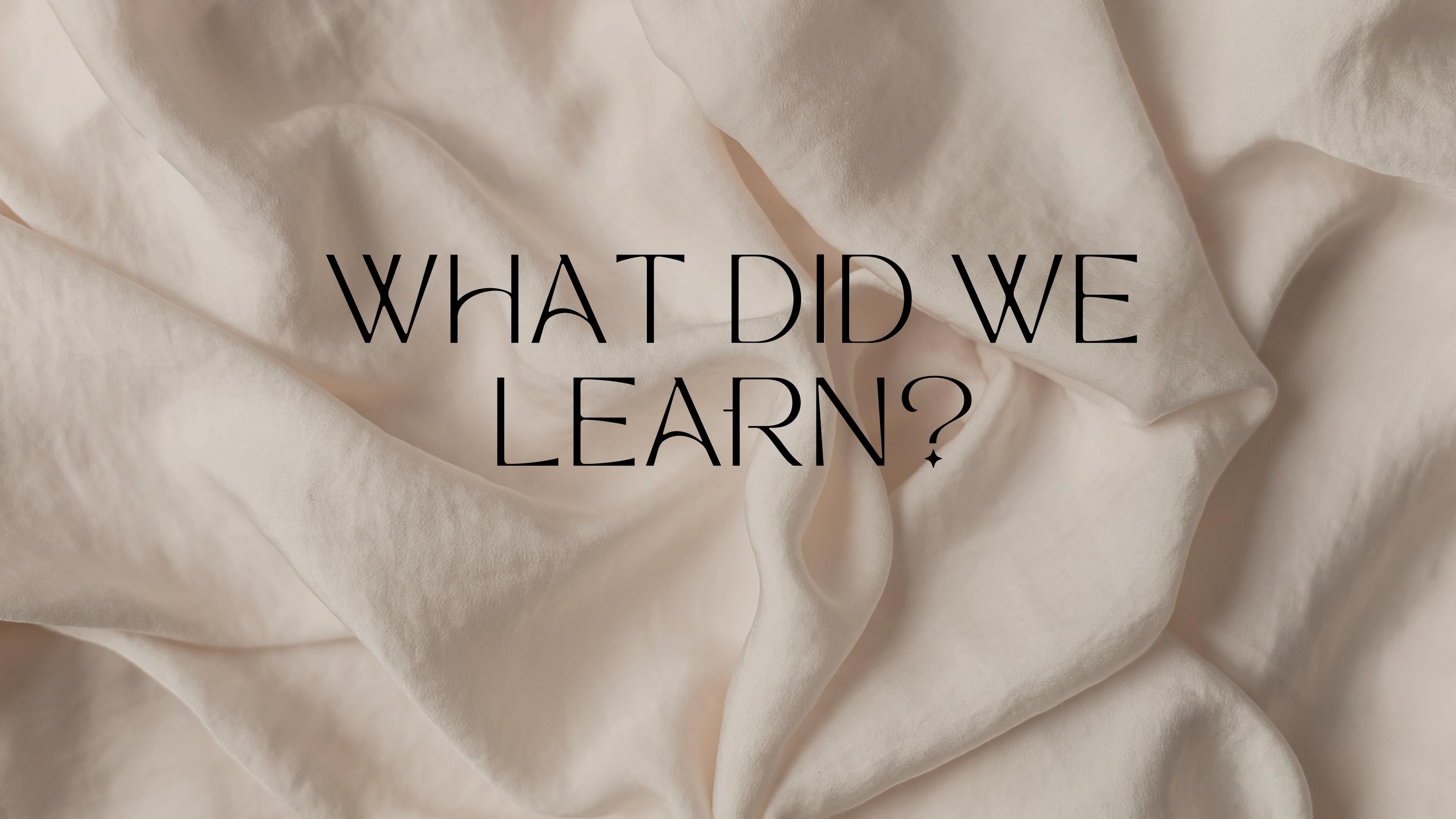


# SMALL COUTURE



# MEGA COUTURE





WHAT DID WE  
LEARN? \*

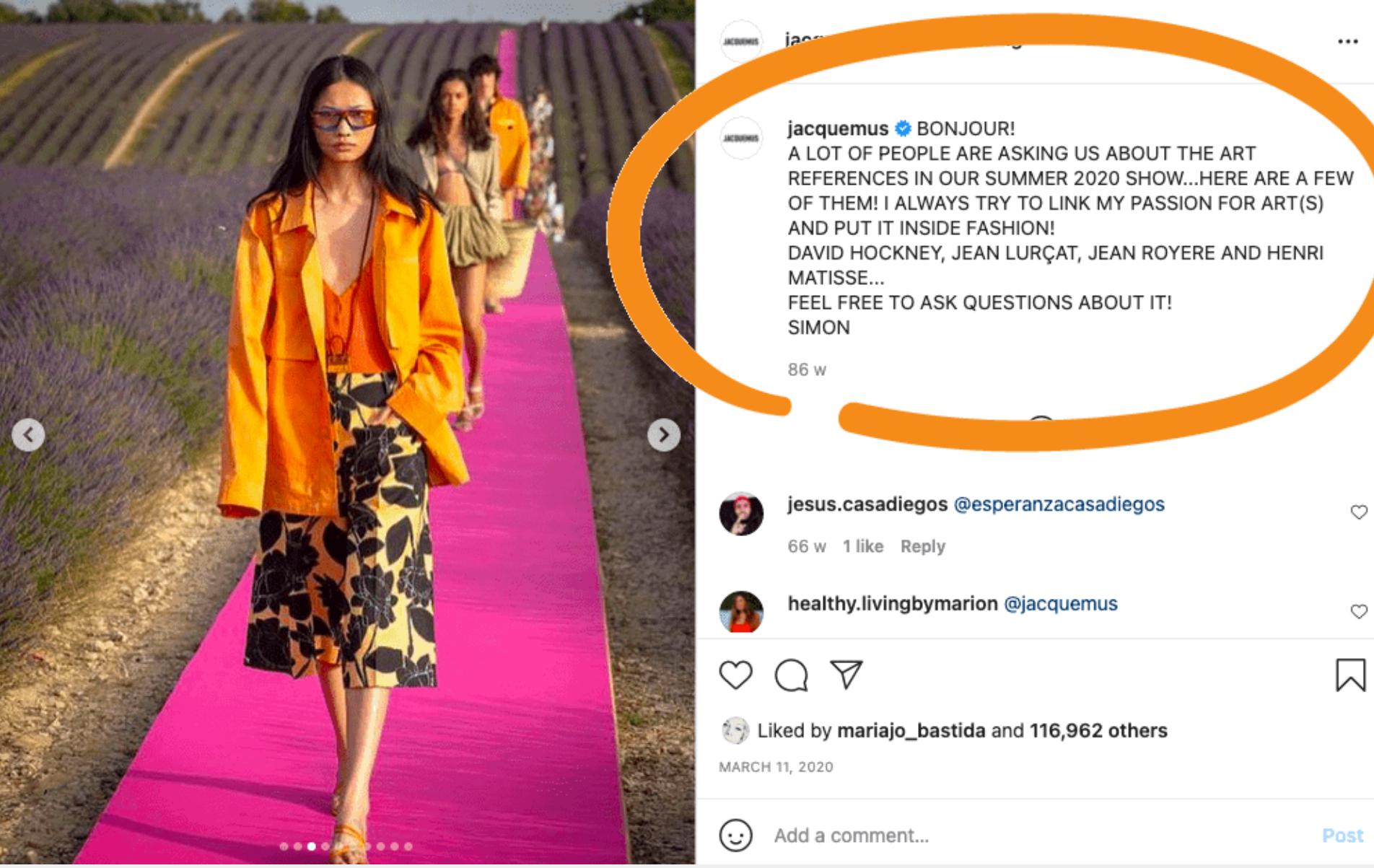
- CLUSTERING OUR DATASETS
- AGGREGATING UNIQUE FEATURES FROM VARIABLES (GROUPBY)
- RIDGE REGRESSION MODEL
- LASSO REGRESSION MODEL
- MULTIPLE LINEAR REGRESSION MODEL
- ANOMALY DETECTION USING ISOLATION FORESTS





OUTCOME OF OUR  
PROJECT





Higher number of  
Followers to make sure  
the posts are seen to a  
wider audience

# Interactive comments to increase user engagement

