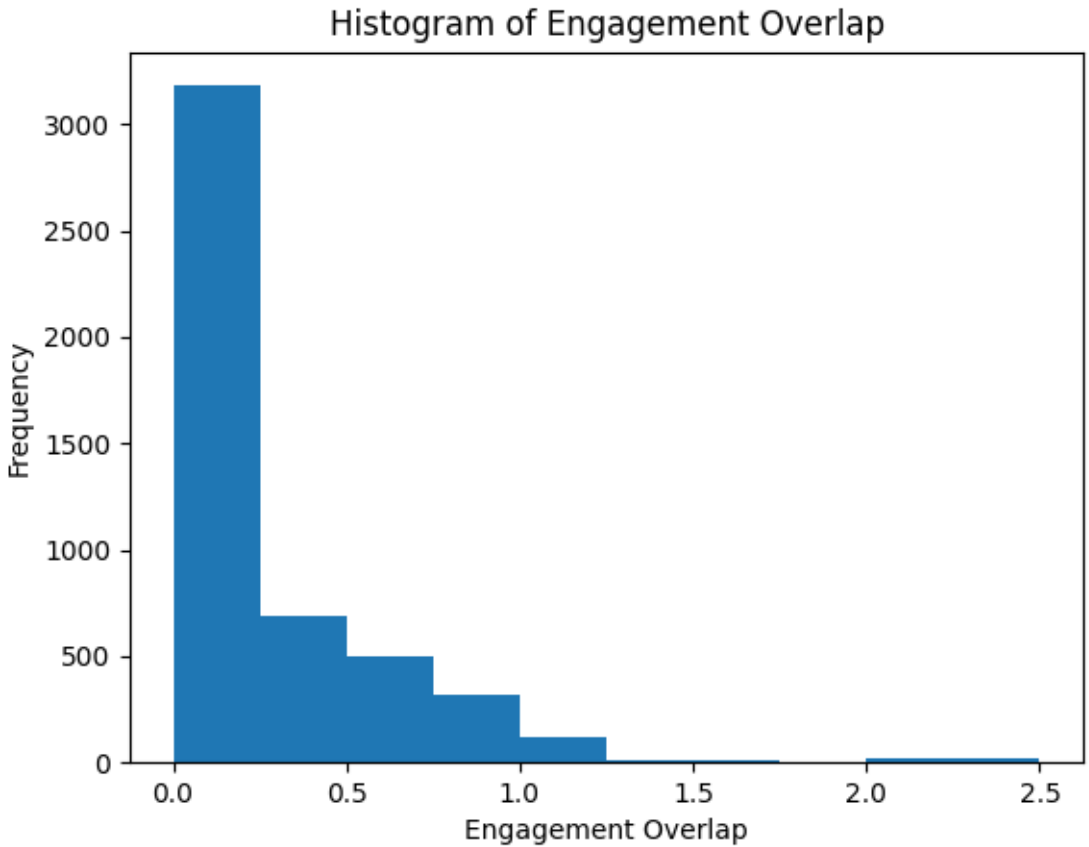
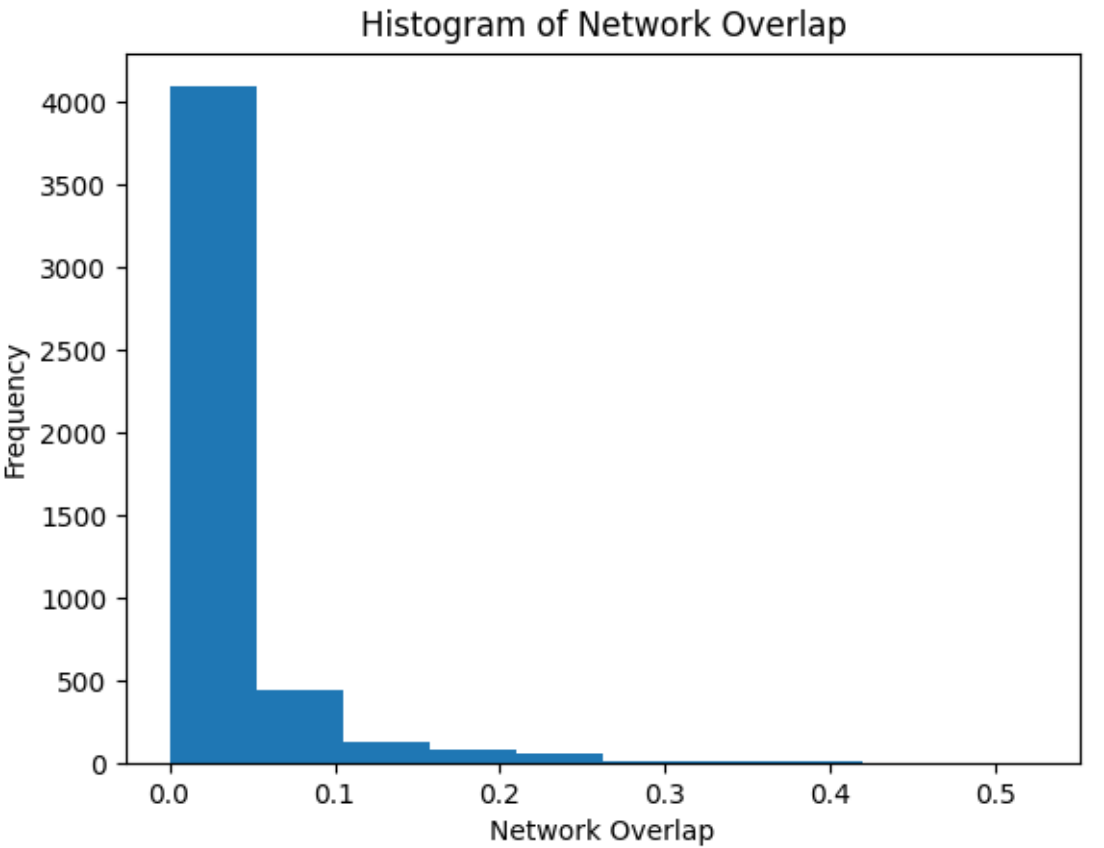

Histogram of Engagement Overlap
Frequency
3000
2500
2000
1500
1000
500
0
0.0
0.5
1.0
1.5
2.0
2.5
Engagement Overlap


Histogram of Network Overlap
Frequency
4000
3500
3000
2500
2000
1500
1000
500
0
0.0
0.1
0.2
0.3
0.4
0.5
Network Overlap

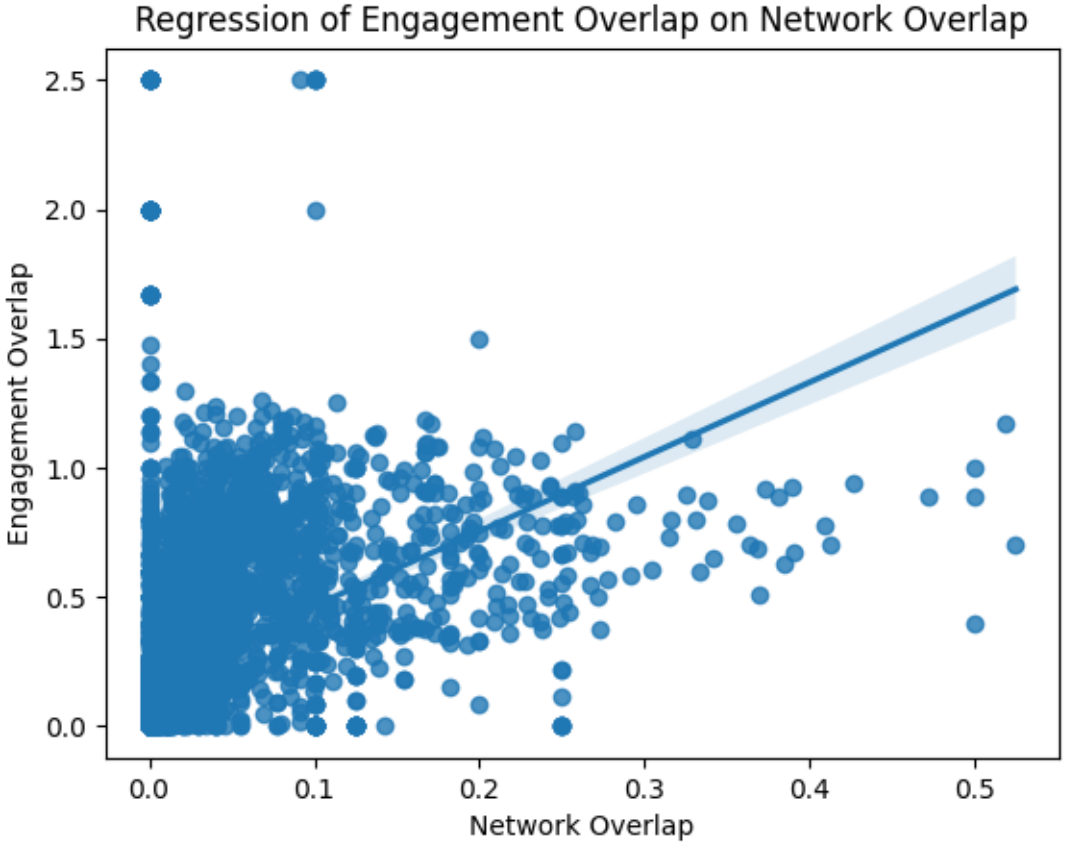
OLS Regression Results

| | | | |
|---|---|---|---|
| Dep. Variable: | y | R-squared: | 0.200 |
| Model: | OLS | Adj. R-squared: | 0.200 |
| Method: | Least Squares | F-statistic: | 1213. |
| Date: | Wed, 04 Oct 2023 | Prob (F-statistic): | 1.82e-237 |
| Time: | 03:34:28 | Log-Likelihood: | -1171.0 |
| No. Observations: | 4851 | AIC: | 2346. |
| Df Residuals: | 4849 | BIC: | 2359. |
| Df Model: | 1 | | |
| Covariance Type: | nonrobust | | |

| | coef | std err | t | P>\|t\| | [0.025 | 0.975] |
|---|---|---|---|---|---|---|
| const | 0.1769 | 0.005 | 35.726 | 0.000 | 0.167 | 0.187 |
| x1 | 2.8858 | 0.083 | 34.833 | 0.000 | 2.723 | 3.048 |

| | | | |
|---|---|---|---|
| Omnibus: | 2982.290 | Durbin-Watson: | 1.762 |
| Prob(Omnibus): | 0.000 | Jarque-Bera (JB): | 41296.713 |
| Skew: | 2.717 | Prob(JB): | 0.00 |
| Kurtosis: | 16.221 | Cond. No. | 18.7 |

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.


Regression of Engagement Overlap on Network Overlap
Engagement Overlap
Network Overlap
0.0
0.5
1.0
1.5
2.0
2.5
0.0
0.1
0.2
0.3
0.4
0.5

Hypothesis on the determinants of the difference between network vs engagement overlaps:

1. Some influencers post certain contents that resonates with a large group of users, but they do not aim to build a vertical network (don't have a consistent follower base), resulting in high engagement overlap but low network overlap with other influencers. Vice versa, some influencers may be dedicated to niche interests, but they don't usually engage with audience actively, resulting in high network overlap but low engagement overlap with other influencers of same interest.

2. Influencers that post very similar content may have high network overlap but low engagement overlap, since users might not engage in highly similar posts twice.

3. Influencers with similar follower demographics but posts with different frequency may have high network overlap but low engagement overlap