Twitter Data Report

**Degree distribution:**

Maximum out-degree (uid1): 214381

Maximum in-degree (uid2): 564512

Below are the two histograms, one for out-degree, and one for in-degree. The histogram has a strong indication of the power-law distribution. When calculating the relationship between the two variables, I took two random points from the data.

For the out-degree function, I used the two points (0, 6.737) and (3.307, 0). Function describing the out-degree relationship:

For the in-degree function, I used the two points (0, 6.577) and (3.301, 0). Function describing the in-degree relationship:

Based on the results, a power-law distribution can be observed. This is a new relationship between 2 variables that I have never seen in any of my undergrad courses. It is interesting to see how a lot of man-made phenomena approximately follow this power-law relationship, and this can be shown from the twitter data in this assignment.