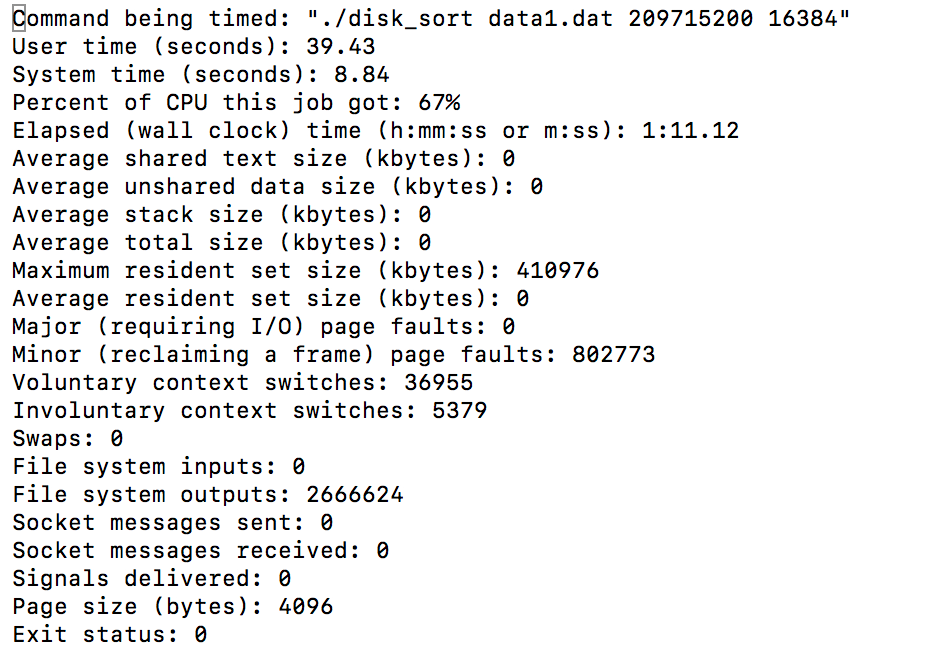
CSC443 Assignment 1 Part2 Report

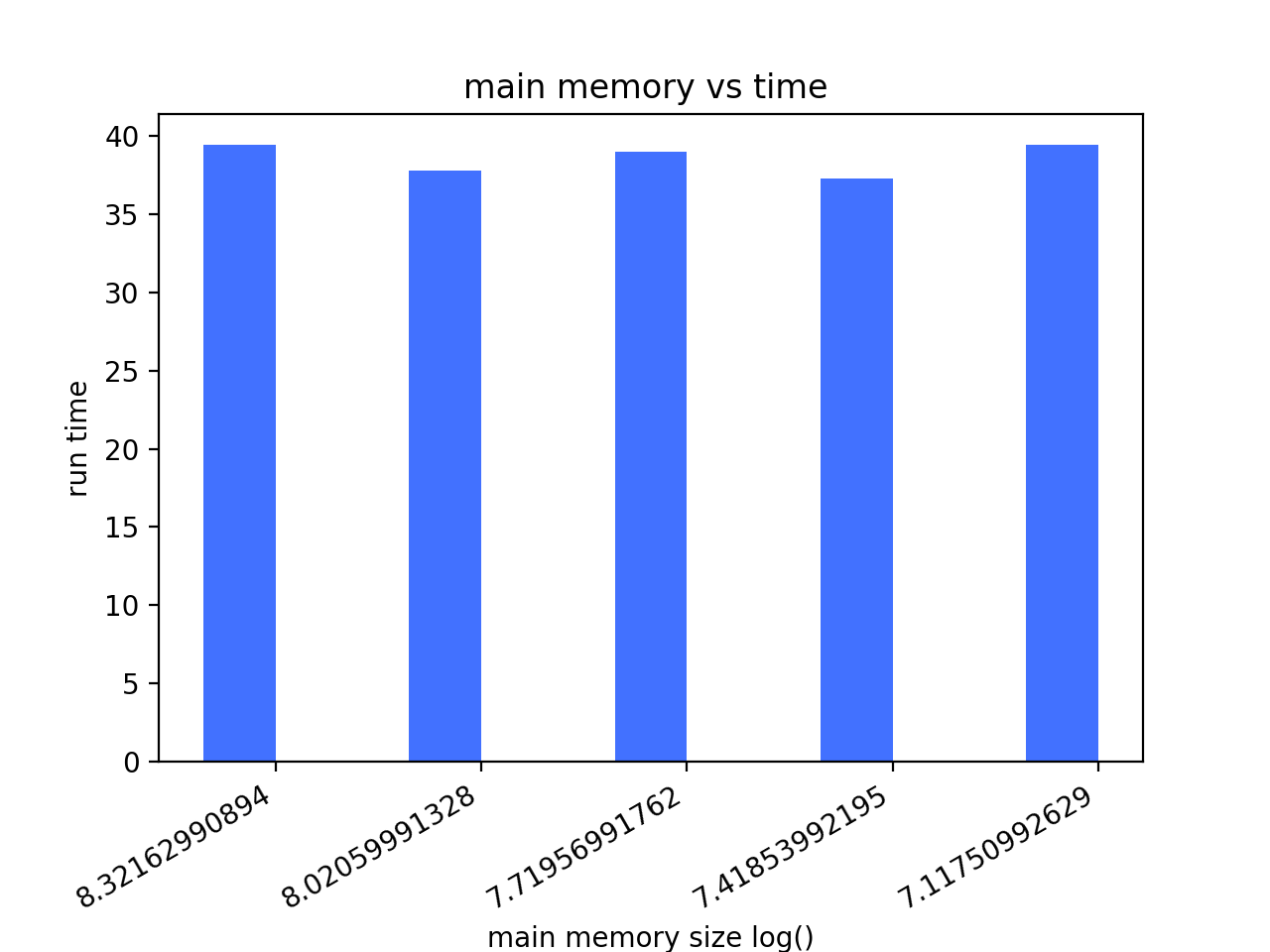
Fangzhou Yu

Yu Xie

2.1:



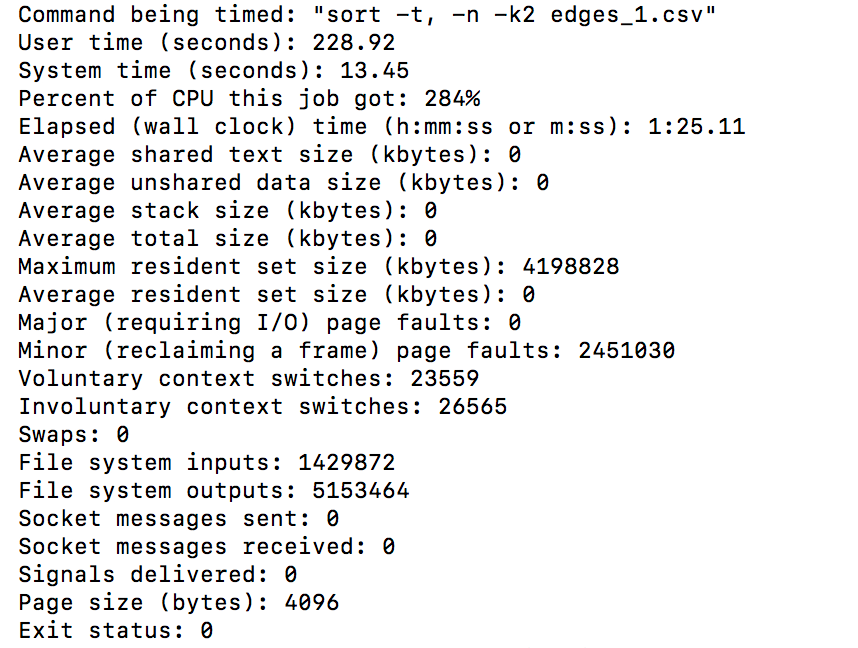
2.2:



Q: Is there any difference in performance in your experiments? Explain why there is a difference or why there is no difference.

A: There is no difference in performance. All the run time we got are very similar.

2.3

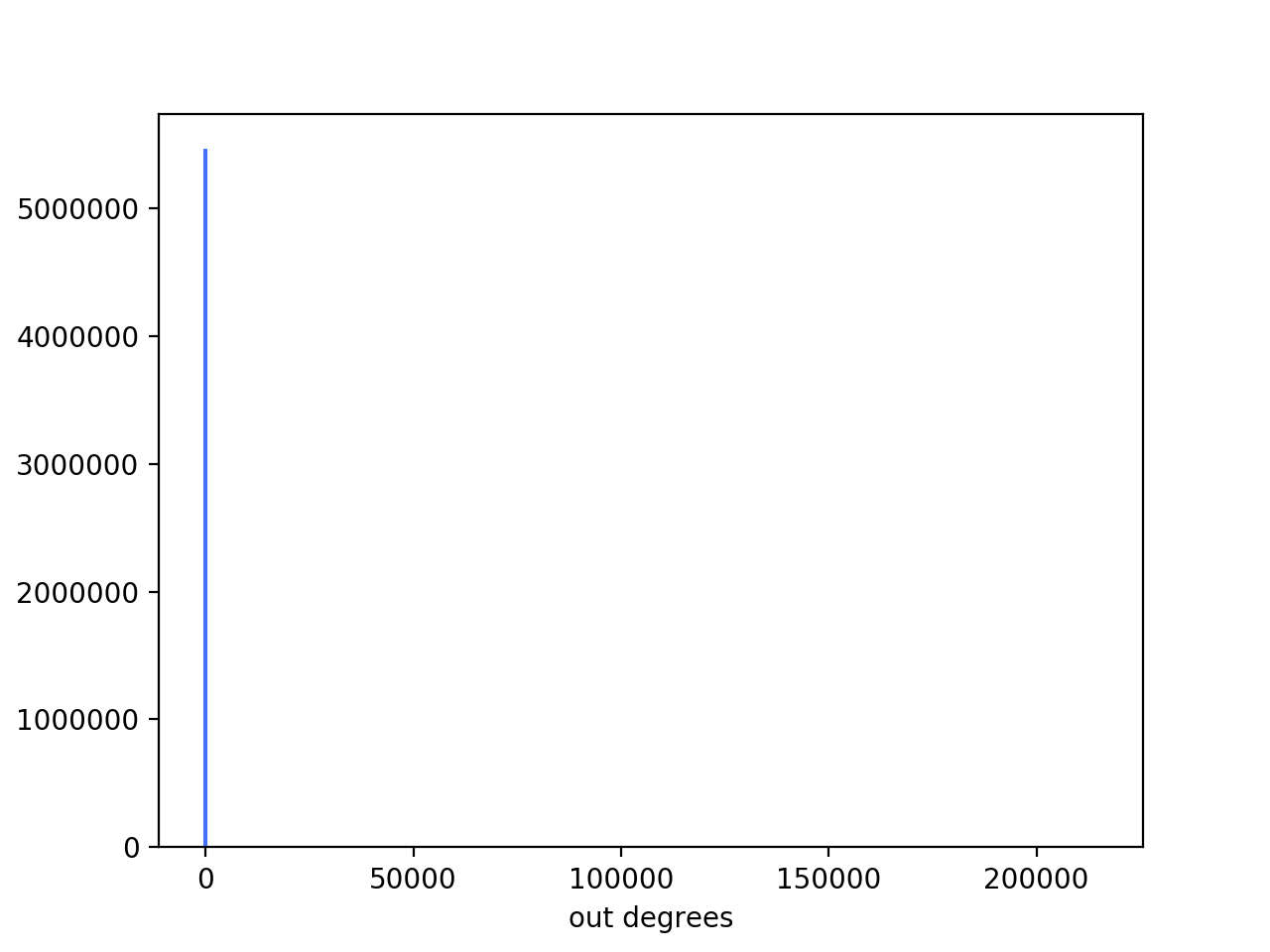


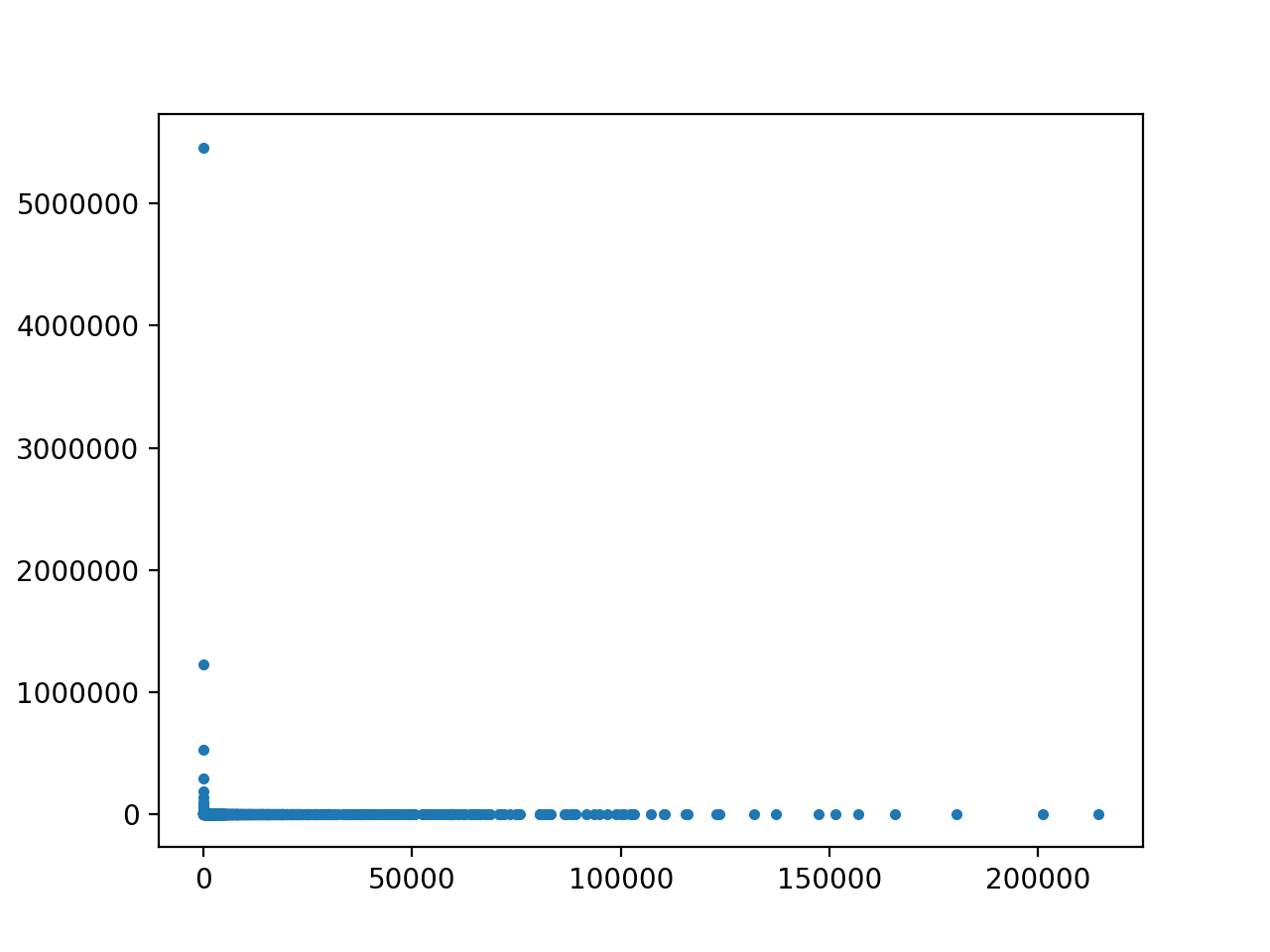
Q: Which program is faster: your implementation or Unix sort? Which one uses less memory? Explain the difference (or the lack of difference) in performance. If there is a difference - what in your opinion could explain it?

A: Our implementation is faster than Unix sort. And our implementation uses less memory.

3.1

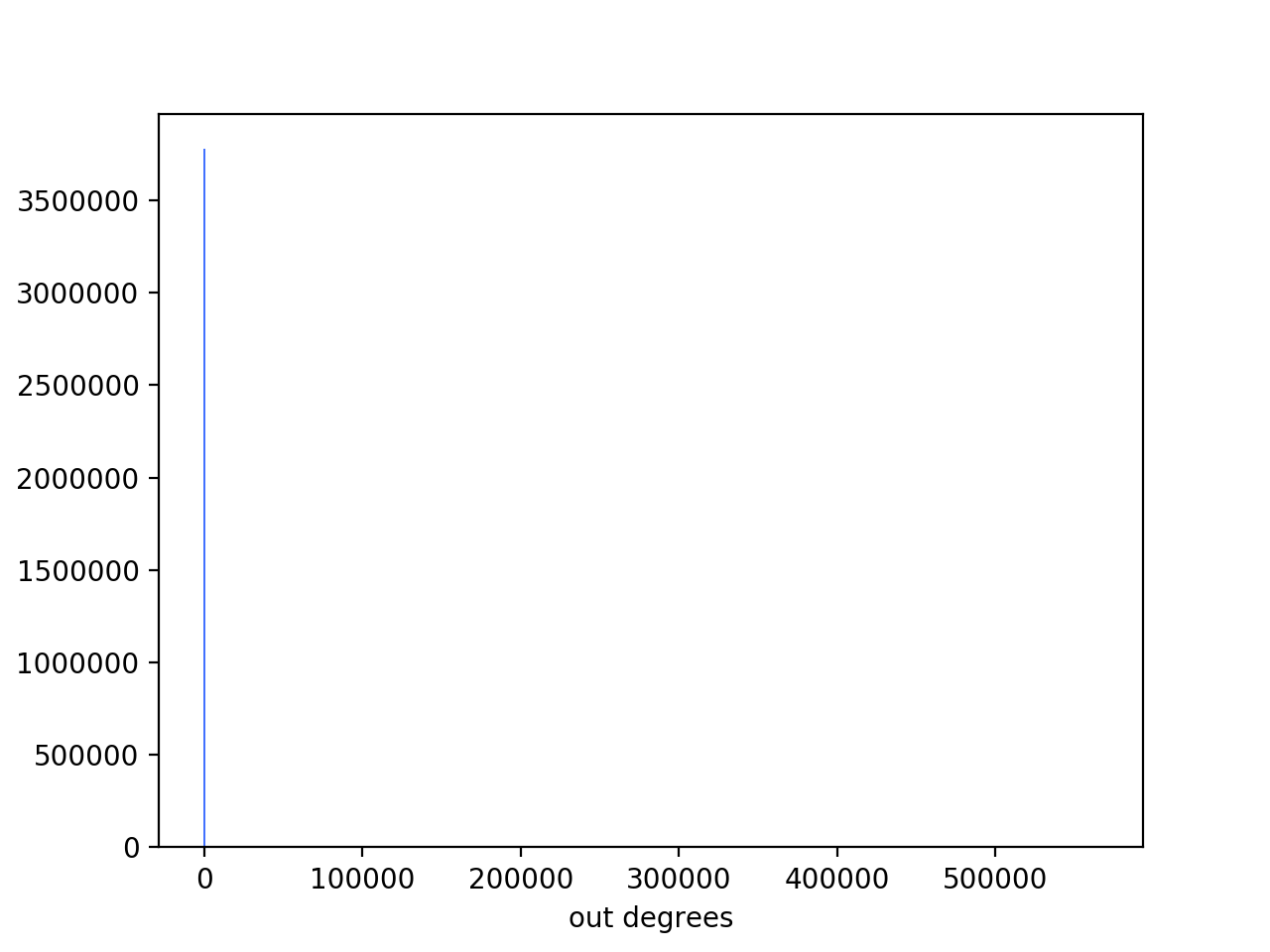
Out degree Histogram

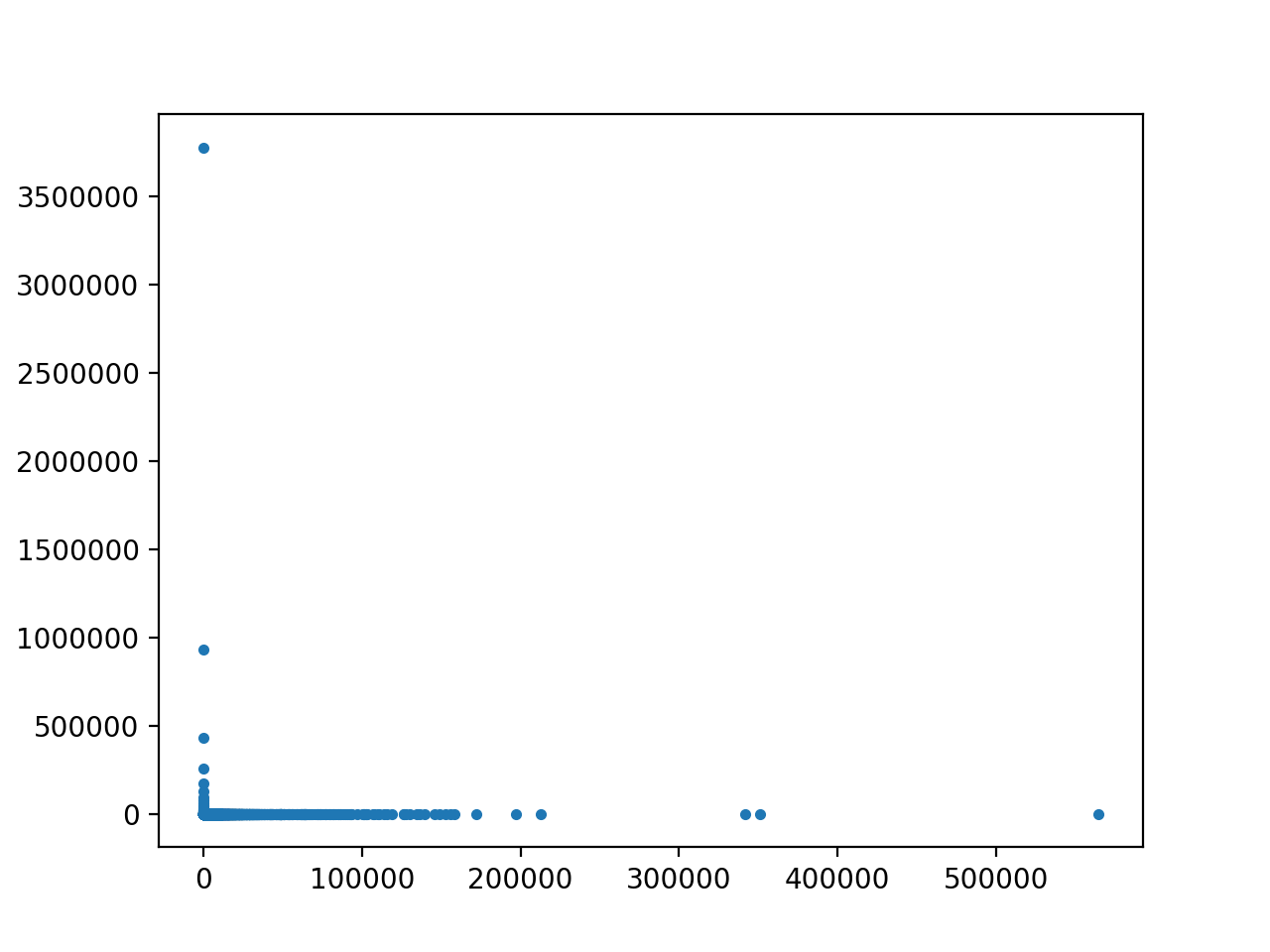




Due to a lot data is close to 1 in the y value, the histogram does not show them very well, I used a plot to show this.

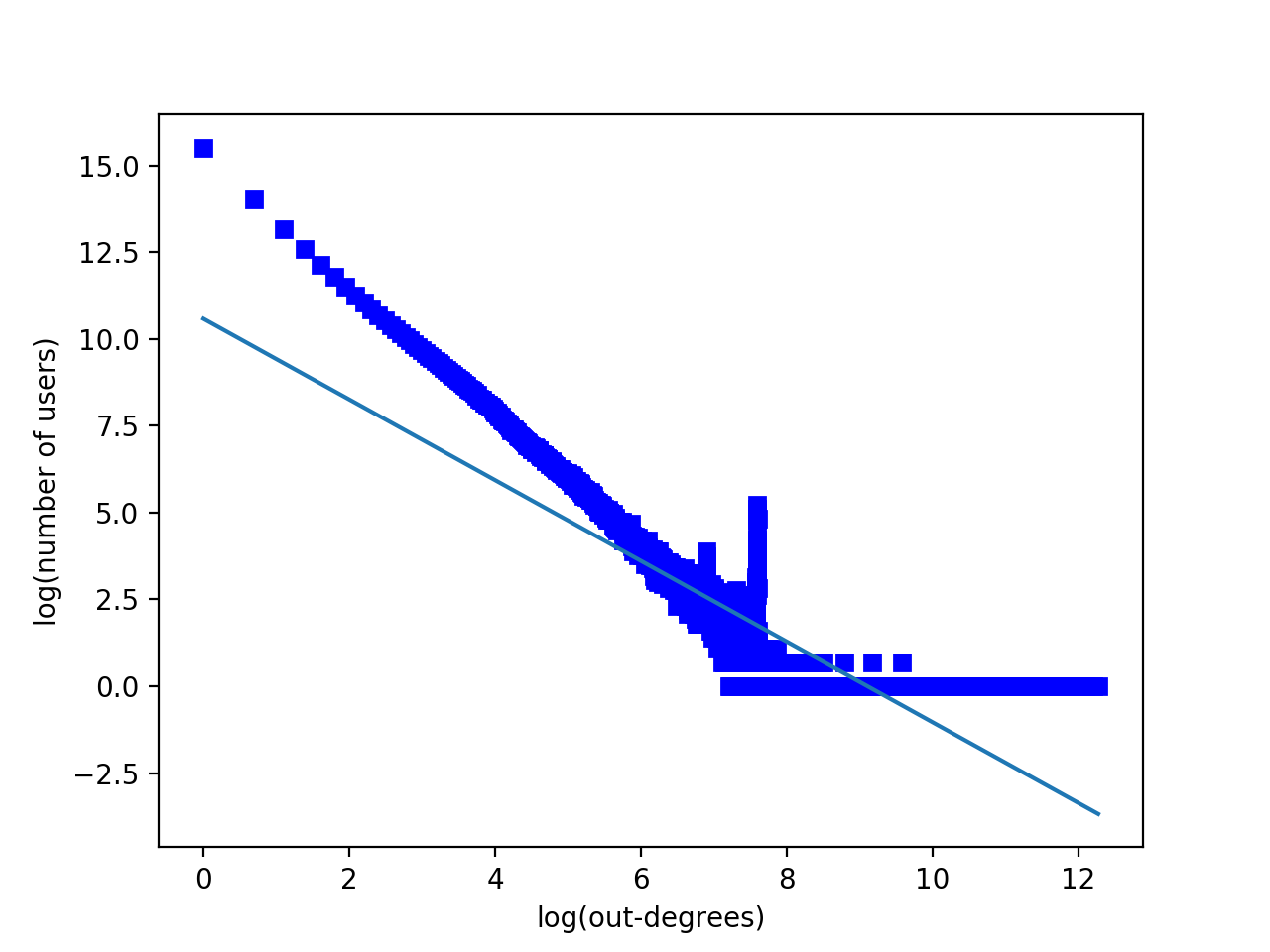
In degree histogram



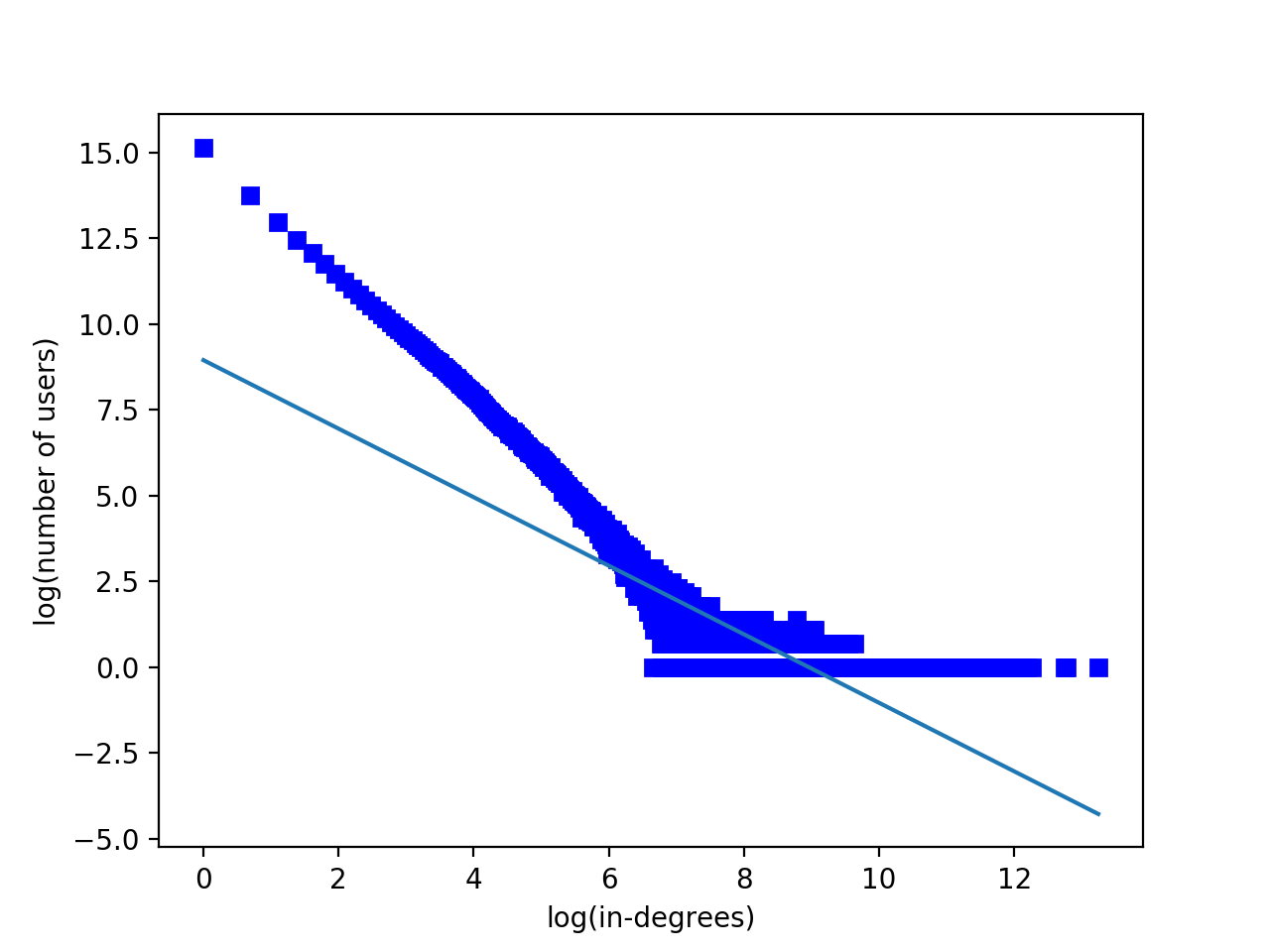


3.2

Out degree power law distribution



In degree power law distribution



Summary:

Out degree has power law distribution with exponent 0.9984. In degree has power law distribution with exponent 0.9984.