

Assignment 2

COMP 596: Network Science

September 2019

1. Select 2 (or more) community detection or graph clustering algorithms which cluster a given graph, and compare their performance.

- (a) apply the algorithms to cluster the graphs [50%]

you are free to use any package or code off-the-shelf, or implement your own algorithm.

Experiment on these three sets of data:

real-classic: strike, karate, polblog, polbooks, football [20%]

real-node-label: citeseer, cora, pubmed [15%]

synthetic: LFR [15%]

- (b) compare their performance [50%]

report average performance, in terms of how much the results agrees with known clusters using both NMI and ARI measures, also report the modularity

report average performance per each type of benchmarks: real-classic [20%], real-node-label[15%], synthetic[15%] and an overall average

bonus the best performing algorithm [10%]

If this assignment, Submit the report and code as separate attachments, by email and use COMP596Ass2 in the title.