15-400 Report 3

Lichen Zhang

February 26, 2020

1 Major Changes

There's no big change since last meeting. Gary wants to experiment on more methods and this is what I am currently working on.

2 Accomplishments

The CRD algorithm has been completed and finished testing. It is now ready to be integrated into the downstream machine learning task. It has some bonus properties such as it can display cuts find by the algorithm.

3 Meet Milestones

This matched up with my milestone, which states that I will finish CRD and begin running Graph-SAGE at the end of February.

4 Surprises

As we have suspected last time, CRD does not perform that well as they described in the paper. The main problem is the algorithm heavily relies on a threshold parameter, which the paper didn't actually exploit a lot, therefore the performance seems to have a large discrepancy between their description and my experiment.

5 Look Ahead

I will quickly finish GraphSAGE test on CRD, and then implements some other algorithms such as ACL PageRank or evolving sets. In fact I don't have strong confidence in CRD, since the algorithm is simply too unstable and dependent too heavily on a tuning parameter.

6 Revisions

No big revisions for the future now. For the sinaweibo project I mentioned last time, I might not be able to get started due to time constraints.

7 Resources

Currently no resource problem.