Major Changes:

On the last report, I mentioned that I might be working with two others. However, Gary gave us another paper that described an algorithm that does global clustering via expander decomposition. I will be more focused on this paper/algorithm now while the other 2 keep working on the local clustering. As for the background knowledge, there’s a bit of overlap but I would still need to read more on more classical expander decomposition methods.

Update: I think there’s an idea that I can work with on the Local Graph Clustering. I will give this one more week of thought. It a variant in which it makes the algorithm perform much more aggressively; in any case, as I have said previously, I don’t want to be a part of implementing this.

What I have accomplished so far:

I have finally completely understood the CRD algorithm. Next week, my goal is to reprove the theorem. I have an idea in mind on how to make the algorithm more aggressive towards its termination condition. However, Gary would like to understand everything before we proceed.

Meeting my Milestone

Here are the tasks that I set out to do:

- Working out the math behind the CRD algorithm.

   Gary and I are now on the same page in terms of understanding how the algorithm works. Next week, we will try to reprove the theorem.

Surprises:

None.

Revisions to Milestones

At the meeting today, Gary and I set our next Milestone to be to reprove the theorem for next week.

As for the Feb. 10 milestone, I plan on developing my idea of making the algorithm more aggressive and see where that goes. Hopefully by Feb. 10, I will be ready to experiment with different variants of this algorithm.

Resources Needed

None so far. We might not even need AWS.