

15-400 Project Milestone Report 6

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1 Milestone outlined in report

In the last milestone report, I said that we would continue to try to characterize easy classifying instances by looking at bipartite graphs.

2 Current Progress

2.1 Accomplishments:

We were able to extend our ideas for cliques, in which we tested for regularity and then removed one vertex and repeated the procedure to check for regularity. A similar method works with complete bipartite graphs, in which both vertex sets in our partition are of the same size. In this case, we would need to remove two vertices and repeat multiple times. This would work for any complete k -partite graph with partitions of equal size, where we would test for regularity and remove k vertices.

2.2 Meeting my milestone:

We were able to successfully use our tests on special complete bipartite graphs, and we learned a little more about when and why these tests will work.

2.3 Looking Ahead:

We want to see if this method works for the cases when the partitions do not have the same size, as well as if we don't know the size of the graph.

2.4 Changes/Surprises/Revisions/Resources Needed:

None