Weekly Report 1
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What I did

I did some assigned reading. I read pages 141-147 of the approximation algorithms textbook written by Professor Williamson and pages 1115-1122 and section 4.1 of Goemans & Williamson 1995.

My thoughts

They are pretty much the same (they both present a semidefinite programming approach to approximate the MAX-CUT problem), but I preferred the textbook. I liked the diagram in the textbook that illustrated the hyperplane interpretation of the solution and the diagrams for proving lemmas 6.7 and 6.8. I do appreciate, however, the paper mentioning previous and subsequent efforts on approximating the MAX-CUT problem

What I will do next

For the coming week I will read the assigned pages for the Trevisan paper (up through section 4) and read the two lecture notes. Then the week after that I will learn Julia and begin programming.