Project Milestone 5

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1 Progress Report

I finally met up with my professor! It was a very fruitful meeting, giving me a new direction on the project. I have a concrete plan for what to do:

1. Use default cb value for 10**7 for 10 seeds

2. Use default cb value until stuck (10**4 - 10**5 without improvement), then switch to random cb value in a certain interval (1.5 - 5.0), keep track of the number of switches.

Now, I have also made a StarExec account to be able to run my project on the cloud. This gives me a way to test my code. Talking with my advisor, I should first test locally which I have been doing, but use the benchmarks on StarExec in order to verify my result on more powerful machines.

Looking forwards, there are a few additional things I can work on. I can narrow down a "not making progress" interval, i.e. the 10**4 - 10**5 band may not be a good number of flips to decide whether we are making progress.

Furthermore, I asked my mentor whether or not if we are not making progress, we actually have zero change in the number of unsatisfied clauses. He assured me that in actuality, most of the times, the number of unsatisfiable clauses would remain constant if we are stuck.

As an outline, I have a good idea of how to proceed. First, I will make sure I know how to count the number of flips. Although poor style, perhaps for now I can store it in a global variable. Furthermore, I need to make sure that my current way of changing the c_b value actually works mid-run.

It has been good to actually meet up with my professor. It gives me direction for my project.

2 Reflection on Initial Plan

I may have to push back a lot, but after discussion with my mentor, I have a very strong grasp on where to proceed. My initial plan may have been too ambitious, and I should have visited my professor earlier.

Major Changes:

I have a strong idea on how to proceed. First, I will create a counter for the number of flips. Then I can measure if it is stuck or not. Then, I can create the random selection. I need to make sure I can measure the number of switches required.

Meeting your Milestone:

I have not met my milestones for this week due to spring break. However, given my new direction, I am sure I can make more progress.

Surprises:

No further surprises.

Revisions to your 07-400 milestones:

I may have to push back many of the milestones :(

Resources needed:

I do not need any further resources.