

Reflection Individual Contests

During these contests, from the beginning of this class up until this last week, I feel I have improved significantly. I can now look at a problem and have a reasonably efficient solution almost immediately. I still struggle with being able to code up my thoughts so quickly, and sometimes I come up with algorithms that are false-positives, meaning, I think they work but really I just made a connection that wasn't really there. However, I have been doing less of this in recent contests. I'll be talking a little bit more in depth about this later on in the paper. I have also begun experimenting with contests that are a little bit more intense than those in class. This is not to say that the class assignments aren't difficult, I just feel they are more solvable.

As I mentioned previously, I have improved how I brainstorm when given a problem to solve. Rather than coding up the worst algorithm with bad space and/or time complexity, now I usually think of the worst algorithm, think of how I can improve it, and if there is a better algorithm to do what I want to do, usually there is. I've made good progress, but I have had a lot of difficulty coding up these problems. I create off-by-one errors and out of bounds exceptions simply because I made a mistake or didn't pay close enough attention to the numbers or the constraints. I've improved, but it still isn't perfect.

I began the semester by needing almost the full time from Friday morning to Wednesday in the early morning to get these problems completed and get them running how I'd like. This is my need for everything to be well documented and look pretty showing, not commenting and improper indenting, or not complying with the industry code standards makes me unhappy. I have a lot of trouble trying to reject everything I've learned about proper indentation, spacing, commenting, and variable naming. I'm getting more used to it, but it is still difficult sometimes because I want so badly to try and make my code look nice and structured so that others can read it and see my thought process. I've overcome this a little bit, now it will only take me until Saturday night or Sunday morning to finish all the programs, but it really just stems from my difficulty to remember what all the lines of a program do and inconsistent commenting because I'm rushed.

I've had a lot of trouble as well during contest when I will think of a solution to the problem which actually turns out to fall apart during testing just because I missed something in the instructions. I think what needs to be improved here is that, even though I'm stressed because of time limitations, I really just need to slow down, read the prompt fully, and make sure I understand the problem fully before I start coding anything. I've also had quite a bit of trouble with coding quickly, but I just have a lot of difficulty working under pressure. Two hours seems like a lot of time until there's a clock ticking backwards on the screen. I really need to work on this, for tests, quizzes, contests, and just in general so I can work better when given a time constraint that may not seem like it is long enough.

The independent contests I've been working on and trying to improve my competition skills such as google problems, interview whiteboard practice, and CodeForces competitions have been very beneficial to seeing how this class could translate to a possible job. These competitions have used some pretty intense graph theory problems and a couple MCSS problems that I've found mainly on CodeForces and Project Euler. These have helped me keep up with the curve in the class and try to do better in the competitions than I usually would.

I will keep working hard to try and improve my individual contest skills and I'm very much looking forward to working with a team so that any of my false positives can be scrutinized by 2-3 other people and I can work as part of a team dynamic. I've worked with several teams at hack-a-thons and I have yet to be disappointed by the different skillset and great ideas from them. I'm hoping that having a group will help me feel more comfortable with the time constraint and not feel as stressed; hopefully it will be just enough to do well and form good ideas under pressure.

Tips for Friday

- Read the whole problem before starting
- Understand the problem before coding
- Take a deep breath and relax
- Quick comments will be a big help
- Don't look at the ticking clock
- Write down all ideas