Advanced Computer Science

Final Reflections

Winter 2016-2017

1. Which assignment this year did you find the most challenging. State the assignment and describe what it was that was particularly difficult for you.

In the beginning, I found recursion more challenging than other projects. First, I was not very familiar with recursive thinking. I found myself spending a lot of time thinking and planning for problems.

1. Describe a specific example of a time when you were stuck on program. Describe what the obstacle was and how you solved the problem you encountered.

There are two specific occasions when I was stuck in a problem that taught me a lot about problem solving and learning. First, it was the Tower of Hanoi. Personally, it was one of the harder recursion problems. Conceptual understanding of this problem was difficult. I spend a lot of time talking to Mr. Bakker and running my program. Eventually, the solution hit me. With little more time, I was able to finish the project.

I still remember the excitement when my binary search tree visualization algorithm finally worked. It was certainly one of the most time-consuming problem that I solved. Thanks to Sean, I got the idea behind the visualization technique.

I dedicated a lot of my time to the problems above. As you known, I am a very stubborn person. I don’t like unsolved problem in my heads. This can be a good and bad thing. One I started solving the problem, I never gave up. I also realized how important it is to talk to others about your problems; to slow down and rethink about your problems. I deeply appreciate this learning process.

1. Someone once said, “*If you can' t learn from your peers, your career will plateau the moment you graduate from college.”* The best learning happens when people collaborate, encourage, and teach each other. Reflect on your contributions to your peers and what others gave to you and your programming / learning. Describe what your contributions were to others. Also describe an instance of something you gained from others.

I truly enjoy working with folks in our class. As you know, I truly enjoy working and also talking with you as well. I often find myself in the position of helping others. This might because of my background in Objective-C and Xcode. While discussing problems with others, it reinforces my appreciation for their opinions and also my understanding of my knowledge.

One of the lessons I learned from others is to value everyone’s ideas. We all have different approaches to problems. By looking at them, I broaden my own views as well.

On the other hand, I would love to work with people who I am not familiar with. Overall, I think we have a wonderful class.

1. This course is a different kind of high school course. You were given significant independence to work on your own programs. Hopefully you experienced an authentic programming / problem solving process. In what ways have you changed and grown as a programmer.

I learned how to slow down. Frankly, I am not good at it. But, now, I make a constant effort to slow myself down. Problem solving is not about IQ, it’s not about who is the fastest. Often times, the process of solving a problem is rewarding and enjoyable.

Of course, I learned a lot of data structures and algorithms. More importantly, I learned how to create a plan in order to solve a problem. I learned how to write code on paper. Those are critical skills that will help me in every aspect of my academic career, at Deerfield and beyond.

1. Thinking ahead to the spring trimester, what are your hopes for the spring? Would you like to cover new computer science topics, or would you prefer to work on designing an app (of your own design or something that someone else would like created). Or is there something else you are hoping to do. Why would you like to go in this particular direction?

Spring is an exciting time. I will devote a lot of my time to robotics, I enjoy making a quadcopter. I would love to work on creating a Bluetooth control for the robot. I believe that there will be a lot of time for great extensions. I believe that if I can create the quadcopter successfully, I can focus on creating some program to further the project.

With that being said, I am completely open to ideas. I would love to continue making apps, or explore other territories. Next year, I believe that Sean Michael and I will take fully advantage of the great opportunity.

Lastly, I would like to say that I truly enjoy working and talking to you, Mr. Bakker. It has been a wonderful journey, we have solved problems, created neural networks, made mazes and many other. Thank you for being a great teacher, you took my great passion for computer science and turn it into a positive force of learning that effects many aspects of my life.