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CMS 380

Reflective Essay

1. At the beginning of this course, all I knew was that the class was called Stochastic Modeling and Simulation Design. “Stochastic modeling” made me think that the class was going to involve lots of probability theory, and “simulation design” made me think that we were going to apply that to coding simulations. Since I have already taken Probability and statistics, and I’m taking Stochastic operations research this semester, I figured that this class was mostly going to be computer science applications of a topic I was already familiar with. Additionally, I was already quite familiar with Python coding so I knew I would have no problems working with that. My general feeling was that I would have a pretty easy time with this class and for the most part that seemed to be true.
2. Sprint 5 was particularly challenging, because typically with programming projects we know in advance the logic we are going to be using and we simply must implement it in code. For this project that wasn’t quite the case, we were told in advance what a discrete event queue was and were given a rough idea of how to implement it, but we were not told how to implement a queue that included a priority line. When coding this, I had a prolonged moment when I wasn’t quite sure how I would implement this. Typically, when I have these moments, I simply start coding the first idea that comes to my mind that made sense, in this case, to make a distinction between priority events and regular events. After a little while, this approach was leading to more problems than it was solutions, and it seemed like handling the events appropriately was very complicated. Eventually, I realized that there wasn’t a meaningful difference between a regular event and a priority event. You can handle an event as a priority event if there is someone in the priority line, and if there isn’t you can handle it as a regular event. This story shows that sometimes when you are stuck on a programming problem, instead of sitting there and thinking about it, a better approach would be to just try and code the best idea you can think of, even if it isn’t a good one. If you do this, eventually the redundancies and inefficiencies in your code will become clear.
3. I had lots of interactions with my groupmates about this class while working on the assignments. The fact that I already had a lot of prior knowledge about the topics in this class made it so I could be of a lot of help to other classmates who didn’t have the same background.
4. This class was the first that really made me break out of my procrastination cycle, because the model of only doing work right before it’s due was completely unsustainable in this class (especially considering I had networks assignments with the same due dates as the projects in this class. One of the reasons I was able to better manage time was because I had significantly more free time than I typically would on

account of there being a pandemic and there being not much to do. I found myself spending my free time being very productive (mostly because there wasn't much else to do besides homework), and getting assignments done long before they were due.

5. My experience learning during the pandemic hasn't been that much different from usual. I do think the lack of breaks in the semester made things particularly difficult this semester, but I also had a lot more free time than usual, so I don't think there was a problem of overworking, it was more a problem of working for too long without a break.

6. For the most part, online education doesn't change much for me. The way classes work is similar so 90% of the time I don't even think about it. If there was one problem I have with online classes, its that I find it significantly more difficult to pay attention to lectures in the online format. I find that my home has lots of distractions that are removed when I'm in a classroom. This is why I always attend my classes in person if I can. While I do have a slight personal preference for in-person classes, I don't feel very strongly about it one way or another. I don't think there any benefits that online teaching has over in person classes, I think if anything it's a downgrade because of how it restricts the ways a professor can teach, it reduces classroom interaction between classmates, it leaves a lot of ambiguity about whether or not the students are understanding the professor, etc. My general thoughts are that in person is better, but online learning isn't so bad that it's unusable.

7. One aspect of learning that I already knew about, but has been reinforced by my classes this semester I that I typically learn material better when given a chance to solve realistic problems with it. I'm usually a very bad auditory learner, explanations and lectures on topics don't really do anything for me and the material being taught usually goes in one ear and out the other. There were times in this class and networks where I would come across a question in an assignment and have no idea how to approach it. I would then open my notebook and find I wrote pages of notes from a lecture about the topic, and I didn't even remember writing the notes and definitely didn't retain the material. I usually won't learn anything about a topic until I have to use the material to solve a problem.