

Reflective Essay

At the beginning of this course, I felt like the content would very somewhat difficult for me because previously I did not have any background knowledge of the topics we discussed in the course. I also expected Networks to be a difficult class since I knew I would be learning a lot of new programming languages and tools such as HTML, CSS, JS, and Bootstrap. However, I figured that Networks would end up being an interesting course that would reveal a new side of computer science for me since most of my experience in the Rollins CS department has been in the core programming-based classes. Considering Networks was designed with a scrum structure, it made me feel more comfortable when choosing to take the class because I have always had overwhelmingly positive comments for the scrum methodology since it was implemented in CS classes at Rollins. I knew that if I had any major troubles at attempting to learn course material, I would have teammates and resources to help me along the way and pick me back up.

One assignment that caused some trouble for me was the web-server socket programming project. Unfortunately, I felt like I was somewhat rusty in the world of C and initially I was worried it would require me to freshen up on my C skills in order to do well on the project. Luckily because of the scrum structure of the class, I was able to collaborate with Griffin and we both worked through our problems together. We both realized that the socket programming, although full of slightly complicated functions and variables, was really easy when we broke it apart conceptually and went back to the basic understanding of what was actually happening when a server processed Http requests. While working on the project, we ran into our roadblocks and frustrations, but eventually we managed to do a good job of covering all the important functionalities of the server. Now, looking back I can say that I really enjoyed reaching the point of having a fully functional web server that could handle get requests and the project itself was very helpful in helping me understand Http and even reinforce some of the older C concepts.

Over the course of the class, I interacted with Griffin quite a lot to discuss deliverable questions or other material in class. We also interacted quite a bit in Simulations since we were also in the same scrum group for that class. I remember starting the Shakespearean Search Engine and struggling to grasp the key processes that would need to take place when reading in inputs from the search bar. Initially, I was struggling to understand how to use JSON objects and the idea of asynchronous functions and Griffin happened to be a great resource when I was trying to learn the background information needed to finish the project. I also did a poor job at scheduling when I would begin the project and procrastinated at the beginning of the sprint instead of trying to understand the key JS concepts that would be necessary to know for when I started the project. Eventually, I was able to create a functional search engine program, but the story did not end there, at least not for me. While I seemed like the newbie who started late and managed to get a working program, Griffin ran into a huge problem that erased most of his finished JS code and all I could think of was the amount of stress he must have been feeling when that happened to him. However, like everything else in Networks, Griffin stayed persistent and pushed forward successfully and he was finally able to finish his project again within several hours. By helping me with my own struggles and even managing to deal with all of his own disastrous abnormalities, I found someone who was very hard-working and willing to help his teammates. I made it my goal to reciprocate that kind of behavior throughout the rest of Networks and even Simulations because that is the kind of chemistry a team needs to be successful when working under pressure.

In the future, I can see myself doing much better in group-oriented environments that rely heavily on teamwork, good communication, timeliness, and adaptability. Over the course of Networks, my group felt the need to interact very frequently to make sure we all understood course material prior to quiz day, and sometimes we would even meet up directly after the release of new sprint material to get a head start on content before it was introduced in class. We all remained

engaged with the course material and also gave the concepts meaning to fully grasp them and how they were all connected. Also, the flexibility of the scrum methodology allowed my group to do a good job of delegating our time even when we had a very busy schedule with a major programming project in Dr. Elva's Software Engineering course and major assignments in other classes like Calculus. We also did a very good job at adapting over the course of the class to make sure we could make adjustments and stay on task. Sometimes we found ourselves leaving major assignments off until the last weekend before the quiz but that behavior quickly changed when we discussed our thoughts about the sprint and possible improvements we could make in the future after taking the quiz. After Rollins, I can see myself using my strong communication, adaptability, and team-oriented skills in order to be successful in a serious tech environment where deadlines are set in stone and time is always limited. With the right skills, I should be able to handle the pressures of time constraints and do a good job of making a schedule that tackles all of the major objectives of a project as early as possible and make any necessary adaptations for future projects.

The current pandemic has caused a lot of headaches and anxiety for people, but what I've learned is that in order to succeed during circumstances out of my control, I must adapt or else face the consequences if I stick to my old routine. My group did a great job of meeting up over WebEx or texting ideas over the course of the semester. However, we also took advantage of our time on campus and still managed to meet up in person sometimes to catch up on serious assignments that required a good degree of communication and discussion like the Shakespearean Search Engine. Sometimes being in person provided us a sense of motivation and energy that would fuel our brainstorming and problem-solving skills, and if either of us felt stuck, it was every easy to flip the switch and right any wrongs. An issue I came across was trying to balance what I was doing in Networks with coursework in other classes, specifically Software Engineering. I felt as if the course load and schedule were designed to be used in a typical semester and did not change to adapt to the current circumstances occurring in our country. Constantly, I felt as if I was experiencing a time crunch in that class that made me worried about my productivity in other classes such as Networks which was very project oriented. Luckily, since my Griffin is in both my Networks scrum group and Software Engineering project group, we did a fantastic job at delegating tasks for that project to lighten the load on individuals in the group who were having rough weeks or a lot of major assignments due for other classes in a certain week. Our chemistry as a team helped to lessen the anxieties involved with heavy course loads and kept me in a comfortable position in Networks.

My typical answer to the in-person vs remote learning problem has always been to prefer in-person learning over remote learning due to the inherent ability of in-person communication being able to spark meaningful discussions and bright ideas. However, due to the circumstances it makes sense to make education at Rollins widely accessible to all students and to ensure a quality education for everyone so remote learning must be an option. The only struggle I often experience with remote learning is a disengagement with course material. To understand concepts, one must provide meaning to those concepts and have a professor that will facilitate that process but sometimes the remote environment just feels lifeless and unable to help students stay engaged with a course. Personally, I don't see any positives of remote learning that particularly stand out and could be experimented in an in-person learning environment. For the most part, I see remote learning as a temporary adaptation to the current circumstances happening in the country, and once that situation is largely taken care of, I don't see any reason why we should continue remote learning in the future as a norm. Obviously sometimes the technology can be very wonky, but for the most part, remote learning just does not provide the same memorable learning experience that an in-person class provides, and it does not seem right to be in a community like Rollins and be without in-person interaction. Ultimately, I'm hoping that learning will go back to normal in the near future.

Over the course of this class, I have become more aware that I learn best with a hybrid model of independent study and group discussion. I found that independent study is very easy to do

when time is available to me on any given day, and that I can spend that time productively. Early on in a sprint, I would take time to just read over all sprint material and outside resources before attempting any deliverable problems or coding assignments. Then, if my group members happened to be struggling with any concepts, I knew that provided me an opportunity to give my own input into a discussion and perhaps teach a difficult concept in a much simpler way to someone. I discovered that productive independent study allowed me to be knowledgeable enough to where I could understand the key concepts and their relationships and then describe that information in my own words to someone and have them understand it if they were struggling with it previously. To me, that process is the ultimate assessment one can make about one's own learning process. If one can master the material and then teach it to someone who is either new to the material or struggling with it, it's very easy to conclude that the material is well understood. I also found independent study more preferable in cases where I often felt slower or less prepared in group discussions. By assessing group discussions, I know just what steps I need to take in my own independent study to either catch up or refine my learning process to ensure I understand new material or refine my understanding of older material. I also found that it's always best to not be afraid to ask for help when I'm surrounded by resources and teammates who are engaged in the material and willing to lend a hand. Sometimes, I would find myself on the teaching end and other times I would find myself on the learning end, and I found that hearing an explanation of a difficult topic in some else's own words really helped to simplify that topic into a simpler one. In group discussions, I also found that mini debates could be useful in helping the whole group understand an important concept. If an important question is proposed but teammates seem divided on the correct answer, it's best to talk through it and come to a clear consensus because sometimes when we take the time to do a deep dive on a concept, we uncover things we did not see previously. Luckily, Griffin and I debate topics very frequently, whether related to Networks or not, so that was not a problem for our group. Ultimately, I found that I was most productive when I developed a healthy balance of independent study that allowed for new discovery and refinements and group discussion, which provided the opportunity to propose questions and challenge opinions on certain concepts. Furthermore, I found that if one can successfully teach a topic, one probably has a clear understanding of the topic and that made me feel very confident about this course as I felt like I was able to successfully help my teammates understand challenging concepts over the course of the class while also have that same behavior reciprocated to me when I needed clarification.