Reflective Essay

Kan Yamane
ky2445

I came into the Learning Analytics Program hoping to pursue a career as a data scientist in the field of educational technology; the HUDK4050 course, which I took as a requirement for my degree, has proved be a great foundational step for my journey. My expectations coming to the course were twofold. First, to understand what “learning analytics” actually meant, and secondly, to gain technical practice on how it could be applied in the real world. I am happy to say that both expectations were achieved.

Prior to taking this course, my understanding of the term “learning analytics” was rudimentary at best. I knew that it involved analyzing data in the context of education, but I was unclear on what that meant practically. “Data analysis” and “data science” felt like big buzz words that people- including me- threw around without much understanding of its actual practices and methodology. In short, all I knew that data science had a lot of potential and seemed very interesting, but I was ignorant of the scope of questions it was capable of addressing in the educational field. Learning the various tools such as regression, classification models, clustering, principal component analysis, and social network analysis in a project-based format helped me gage how these tools could be applied in real-life scenarios.

My favorite moment of this course was when I was brainstorming research questions for our final project within my group. One of my teammates had offered to provide data from an adult-learning program she was looking for, and we were sharing ideas on what we could do with the given data. We wanted to find the right balance between the “how” and the “why”; in other words, we wanted to work with a question that we could feasibly answer given the set of skills that we had learned in class, but also wanted a question that was practically interesting and ideally be helpful to the original organization and its students. We eventually settled on grouping students together into tutoring groups based on their academic performance for a certain test. What I liked about this question was that it was useful: our teammate confirmed had told us that the organization already split their students into groups when it came to teaching, so it made sense that we try to optimize this process. In addition, I also appreciated the simplicity of the solution; the code was very close to what we had done in one of the clustering assignments in class. It was a delightful moment that made me realize that what we had learned in class was useful in solving problems in the real world.

There is a lot that I am looking forward to as I continue to study learning analytics. I am eager to learn new methodology that I can add to my repertoire of analytical tools. In

addition, I would like to gain technical experience in coding and actual execution of the analytics. Finally, I need to study the supplementary tools that go hand in hand with data analytics; for example, ways to collect data and making use of our analytical findings. Overall, HUDK4050 was a great starting point in my journey of mastering learning analytics, and, hopefully, my career.