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HUDK 4050

Professor Lucas Liu

Self-Reflection

As a student in Learning Analytic Program, I have to take HUDK 4050 to fulfill my core requirement. I was very nervous before I took this class, because I only took a fundamental CS class in my Freshman year in undergraduate. I hope I could be able to analyze data and to solve the real-world question. My goal does not change and I achieve my foal in the end with my effort.

At the start, I felt I could finish my work individually and ICE one and ICE two were very detailed and straightforward. However, when I was frustrated when I started doing ACA one. I then find a group and joined the group with two classmates. Our group worked together for this class throughout the whole semester. Starting with Analysis Challenge Assignments, we were first brainstorming in group meetings via Zoom to determine what materials we were going to use, and then we divided the assignment to into several parts. Each of us was responsible for one or more parts and after we completed our parts, we would pasted our parts together and reorganized the assignment. We did not do very well in ACA 1 but professor gave us anther opportunity so we can make up it. We were getting familiar with the class materials and understood the requirements of ACA, so we did better in the following assignments. In ICE 1, we learned to install and load packages and knew data types in Python. In ICE 2, we learned to index data, create data mask for filtering and combine datasets. We used the knowledge from ICE 1 and ICE two to complete the ACA1. In ICE 3, we learned to build simple regression model as well as multiple regression model. In ICE 4, we learned machine learning and classification, and we also learned to use binary logistic regression, decision tree or Naive Bayes to train a classifier. Our group use most of materials from ICE 3 and ICE 4 to complete ACA 2. In ICE 5, we used K-means algorithm to create clusters and create silhouette plot in order to evaluate the number of clusters. In ICE 6, we explored principal component analysis and learned to use PCA algorithm for dimension reduction. These materials were very useful to ACA 3. In ICE 7, we learned to identify the model diagnostic metrics, and in ICE 8 we learned social network analysis and how to visualize it. ICE 5 and ICE 7 were challenging to me and I spent a lot time to understand them.

I benefited a lot from this group cooperation, which not only made us pay attention to integrating various resources, but also made us realize that hands-on practice, independent exploration and communication are important to cooperation. My learning experience lets me consolidate the knowledge I have learned before, effectively apply the knowledge to the case, deepen my understanding. It let me learn more about cooperation which means listening to others’ opinions in the discussion, completing task together and helping other members if teams members are confused. All in all, I hole I will continue to accumulate experience, sum up the past and look into the future. I believe what I learned in class can help me solve practical problems and can be useful in my career life.