

HUDK4050

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Reflection essay

As a result of my personal background, I had a complicated feeling when I chose this course. I felt confident because I took one or two basic python courses in my undergraduate school, and I thought I could easily do the coding assignment. While I felt anxious at the same time, because of not enough professional coding skills and new knowledge that I have never learned before. However, I think what I thought is wrong because I think this course is not really focused on coding especially, but how to use python skills to apply in the real world.

In the process of completing this course, I have learned a lot from using models to analyze data, adjusting models to achieve our expected results, and explaining the results. The whole process is so valuable and useful, and I might use this in my future job. Regression model is one of the practical models that we can use. For example, if we can get the students' study activity data, like the list of courses they are taking, the total time students spent in each course, and the scores of each course. Once we have these data, we can use the regression model in prediction and provide more help by improving our learning experience and methods for students. Furthermore, we can also use the k-means clustering to classify the courses. For example, we can know which courses that students spend more time on and try to adjust those courses to reduce the pressure for students. Of course, we need to use the PCA and model metrics to evaluate the accuracy of the model. The model that I think the most interesting is the networks. In class, we can use this model to find our friends, which is a good example to help us know how to use this model. I think every model is so integrated that we can solve a lot of questions in the real world.

Overall, I really like this course, and I think Dr. Liu is so kind. I really like his teaching style. Working with another classmate enabled me to learn communication skills and a different perspective from others. In addition, I think that learning how to self-study and solve problems by myself is an essential ability, and this is also a major difference from the undergraduate course.