

Reflective Report

This reflective report aims to summarize firstly some key skills for Python programming that I have learned both in and out of curriculum and some challenges I came across while working on the individual assignment. Some thoughts and feelings about this module and programming is also discussed.

To develop some fundamental programming skills that can be useful in my future career is one of my motivation to study MSc MISDI at WBS. Graduated from a mathematics degree, I have had some entry level experience in programming with MATLAB. Although there might be some similarities between different programming languages, I think it is important to master in-depth a mainstream language which is widely used in various business areas. On the first lecture, I learned that Python is among the most popular languages and is in increasing demand in workplace, which has been motivating me to work hard on this module.

Due to the slow-paced and introductory nature of the module, I find it not very struggling to get started with a brand-new language for me. Following the pace of each week, I got myself familiar with the basics of Python programming, including basic functions, conditional statements, loop statements, complex data types, defining new functions, file operations, modules and some complex problems. Most of the skills are applied in the individual assignment. In addition to understanding the contents covered in curriculum, it is extremely important to self-study by Google and other online resources. Through learning this module, I find the most effective way to study programming is to practice as much as possible because every time I try to achieve something new, I always encounter some new problems. When I try to solve the problems online by myself, I know I am making progress. I will briefly talk about some challenges that arose when I was doing the individual assignment.

The first problem is how to run multiple linear regression in Python. Though I have had

some experience doing linear regression in the module Data Analytics and Artificial Intelligence in language R, I have never done it in Python. After searching on Google, I learned that linear regression could be achieved with the package “sklearn.linear_model”. Other similar skills I learned by Google include importing .xlsx files as dataframe with the package “pandas”, appending a new column to dataframe, transforming a dataframe into a list of dictionaries, saving a list of dictionaries to .csv files with the package “csv”, etc.

By practicing and self-studying, I also come to realize the importance of the overall design of the structure of the program. When I am faced with a complex task, it is necessary to break it down to smaller parts and figure them out step by step. Taking the assignment for example, in use case 1, it is required that predicted prices should be presented together with other information in the search result. After careful consideration, I decided to calculate the predicted prices for all properties in the list in advance and append them to the property list. In this way, the predicted prices will be presented automatically in the search result.

Finally, it is not the skills I have developed in the past four months that counts the most, but the interest to Python and programming that this module has brought to me. Before taking this module, I had always heard about the high popularity and strong power of Python, but it had been very mysterious to me for a long time. Through the slow-paced teaching and the interesting but challenging exercises in this module, I have developed a great interest to Python and programming. Every time I figure out a new approach to solve problems or eliminate a bug, I always get a strong sense of accomplishment and progress, which motivates me to progress further.