人工智慧導論

Expected results:

Our final goal is to predict the real estate prices in Taiwan. In our dataset we had over ten thousand data and every real estate data had 22 attributes which contain every house location, land area, building type and so on that were provided by Bank Sinopac. What is more, we had some external datasets such as information of school, convenient store and train station in Taiwan. To measure our result, we decided to use MAPE (Mean Absolute Percentage Error) to judge our model. If the percentage of MAPE is less, that is mean our prediction is more precise.

We expected that our project could be the milestone for researching real estate by using machine learning in Taiwan. We discovered that a lot of oversea researchers already applied machine learning into real estate research, however there is not representative research in Taiwan where is especially known for high house prices. We hoped that we could have better understanding of the trend of real estate price by conducting this project. Moreover, we could realize that what kinds of attribute in real estate is more important since we had 22 different aspects of a house.

Apart from the distribution of real estate research, we also wanted to contribute some effort in machine learning. Because the price of real estate is varied from different countries or even different cities, this would be a good example to handle this kind of problem in machine learning. We would like to find out what kind of neural networks is more suitable for this problem. Furthermore, we want to understand which parameters may cause enormous differences in the accuracy of models.

In the end, we expected that we can establish model or a system to predict house price by giving some properties. We will try every possible way to increase accuracy of prediction. When having this model or system to predict real estate price, we could reduce some time to inference the proper price for a house. For those who do not have any knowledge of real estate it will be a tremendous helping when purchasing a house.