

Today, we learned classification. We learned about terms called when the prediction is yes or no and when the ground truth is yes or no. True positive, true negative, false positive, false negative, and false negative were concepts that we already knew, so we could fully understand them. They said that if the precision score goes up, the recall goes down, but I thought it would be nice if I could check it myself through practice. There were various terms in the confusion matrix, but it was okay to know only precision and recall. I could recall once again that \hat{y} is a predicted value, and y_{star} is a real value.

In the practical jupyter notebook, we first learned the concept of perceptron. Looking at the picture of the input, output, and weight update methods, I thought that machine learning would begin in earnest from now on. 'No free lunch theory' was impressive. It is said that just because the model works well for one data does not apply to all other data. I also learned that the logistic function is used as an activation function of binary classification, and that the higher the entropy, the more diverse objects exist. I also learned the concepts of overfitting and underfitting, and that L2 regularization makes the weight value small. In addition to logistic regression, I learned about decision tree and KNN, models used for classification, which had to be applied to exercise. I felt good because I wrote the code closest to the correct answer among the extreme so far. It was possible to compare the difference between the one-hot encoding and the difference of accuracy score between models.

Association was omitted due to the time limit, but it was good that the data were provided.