Today was Daniel's last class. It was a shame that I couldn't share more classes with Daniel. Today, I first learned ensemble learning. Just as it is better to ask multiple people for answers than to ask one person, it is ensemble learning to collect the results from various models and derive a better result. The relationship between base error and ensemble error could be confirmed with a graph. The difference between hard voting and soft voting was also found, and hard voting is to adopt the result with more results by simply counting the results of each model, and soft voting is to adopt the result by considering the weight according to the probability, not simply counting. Bagging was also learned. By bootstrapping the data into n random samples, each model can learn various sample data, resulting in a generalization effect. Random forest is one of the examples of using bagging, which is the use of several decision trees. Through the win recognition example, we were able to see how the theory was applied. We also learned Adaboost. The main idea was that misclassified data give greater weight. In conclusion, the strong effect of bagging and boosting was seen.

After exercise, I listened to Professor Marianne's 'bias and fairness in AI'. We were able to think about what we should be careful about when using artificial intelligence and what ethical problems there are. After lunch, I was able to visit the Liebherr company and find out what kind of company it is and how to use it. The artificial intelligence in the form of a chatbot felt similar to the DASU, and I was able to gain enthusiasm for capstone activities by watching the artificial intelligence that took care of the inside of the refrigerator.