Introduction :

Our project is to classify polygons that have lost attributes in gis data. The purpose of doing this is to lose data attributes when processing gis data. Most of the existing models are based on coordinate Data training, what we do is to classify polygons pictures in gis data based on neural network

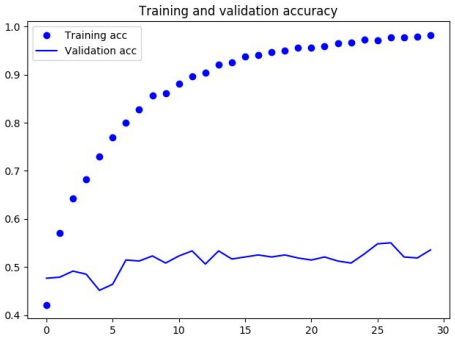
Individual work

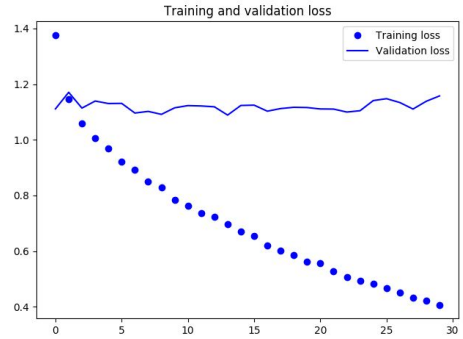
What I need to do is to obtain the features of the picture through the pretrain model. Based on vgg to obtain the features, I set up a neural network to classify the results of the pretrain model and adjust the parameters accordingly.

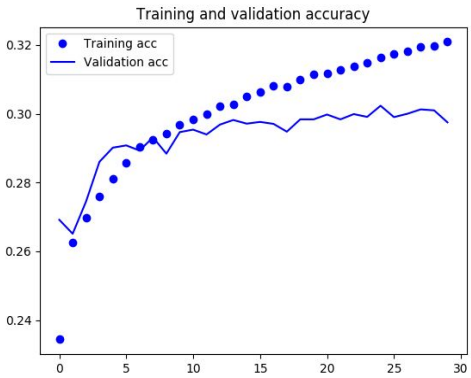
Result

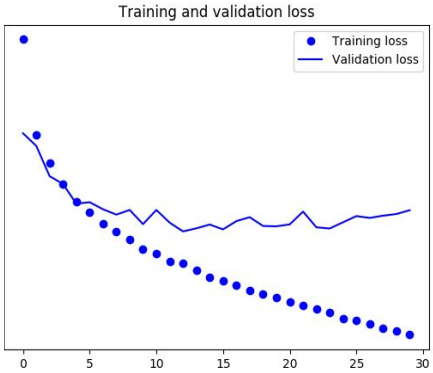
For the previous two figures, the results obtained by the most basic model, from the perspective of loss, the training loss is falling faster, but the decrease of the verification loss is not so large, which means that there is a great possibility that our model is overly complex. At the same time, the magnitude of the change in training acc and validation acc also reflects this problem. By preprocessing the data and adjusting the parameters for the entire model, our model ’s overfitting is reduced and the prediction accuracy of the model is hit 30%. Although the result did not reach the expected effect, the possible reason is that the data I got is only the shape of some building outlines. Using these shapes to classify them into specific types of buildings, the features it can learn for neural networks are very less, the second is that there is

no obvious feature data between each category or even some overlaps and similarities, which is the reason for the relatively low accuracy









Summary

What I want to achieve for this model is to train several pretrain models at the same time as mentioned by the teacher, then combine the results of these pretrain models, and finally predict the model output by logistic regression, although the accuracy of the current model prediction is not very high High but learn to deal with overfitting when training models and tuning parameters

Percentage of code:

40%