

Test accuracy was 91.5% when I set the seed as 100. First I initialized the parameter and defined the softmax function and then used the stochastic gradient descent 100000 times. The learning rate was 0.6 for the first 40000 iterations, 0.06 for the next 30000 iterations and 0.006 for the next 30000 iterations. Next, I calculated the probability of the each category by assigning the parameter computed in the stochastic gradient descent and test dataset into the softmax function. Finally, I counted the number of correctness of the classification and calculated the accuracy.