

Problem 6.9

May 10, 2024

1 Problem

We run the stochastic gradient descent algorithm for 1,000 iterations on a dataset of size 100 with a batch size of 20. For how many epochs did we train the model?

2 Answer

Assuming we don't replace the items selected for each batch. The first epoch occurs after $\frac{100}{20} = 5$ iterations. The pool of data is exhausted, so we have done our first epoch. With 5 iterations per epoch we have 1000 iterations so that is $\frac{1000}{5} = 200$ epochs.