

Homework 1

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1 Answer 2

In this problem, I will investigate the influence of number of epochs a two layer neural is trained on the accuracy of the model. I investigate for five different types of functions.

1.1 Smooth vs Non-smooth function

For the smooth function, I use the function $f(x) = x$, and for the non-smooth function, I use the function $f(x) = x - \lfloor x \rfloor$.

As indicated in the graph below, the non-smooth is more difficult to train than the smooth function. I.e, it reaches low loss in later epochs. The accuracy of the model for the non-smooth function also starts out to be worse than that of the smooth function.

