

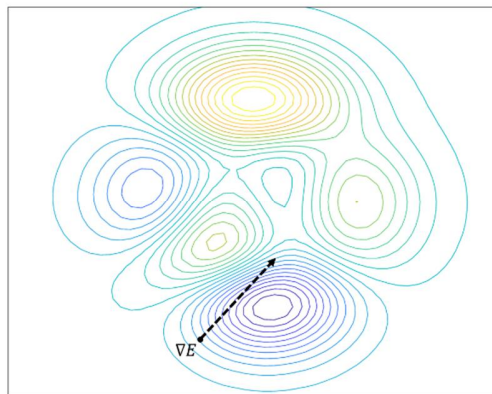
# Training Options

A basic understanding of how training works can help you sift through the many training options available. The next few pages will break down some of the important ones:

- Mini-batches
- Learning rates
- Gradient clipping
- Algorithms

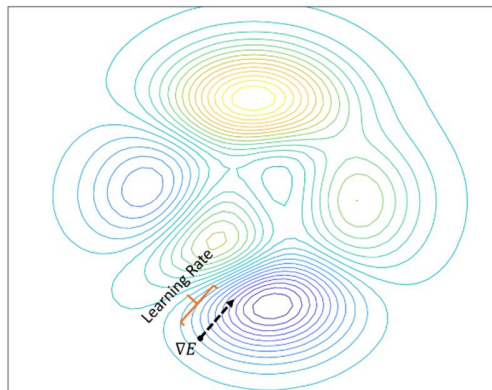
## Learning rates

1.



*Gradient descent takes a step in the direction of the gradient.*

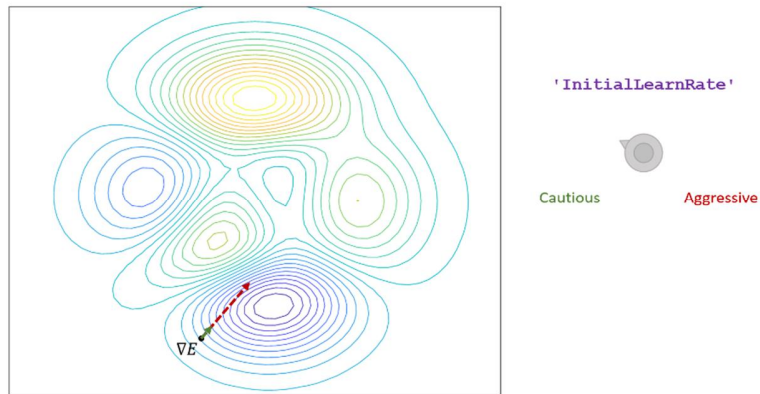
2.



`'InitialLearnRate'`

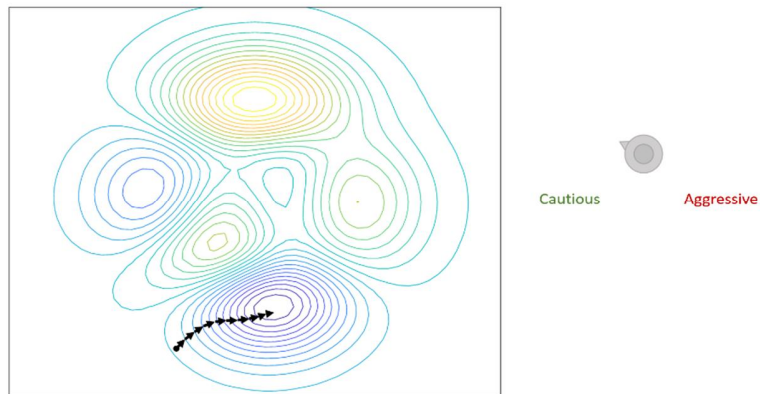
*The size of that step is known as the **learning rate**.*

3.



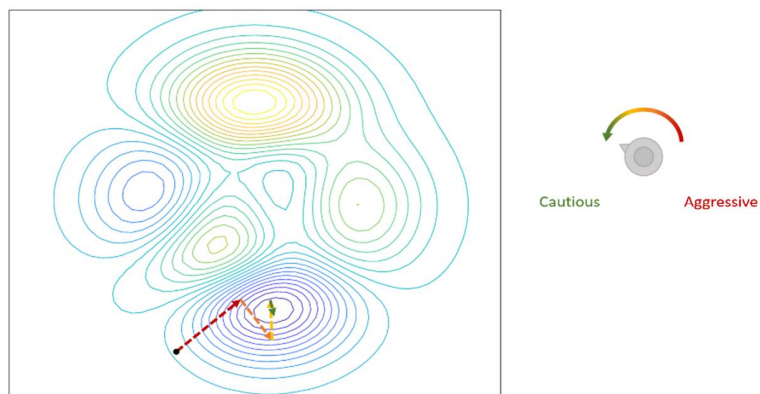
*You can think of the learning rate as how aggressively you want to modify your parameters at each step.*

4.



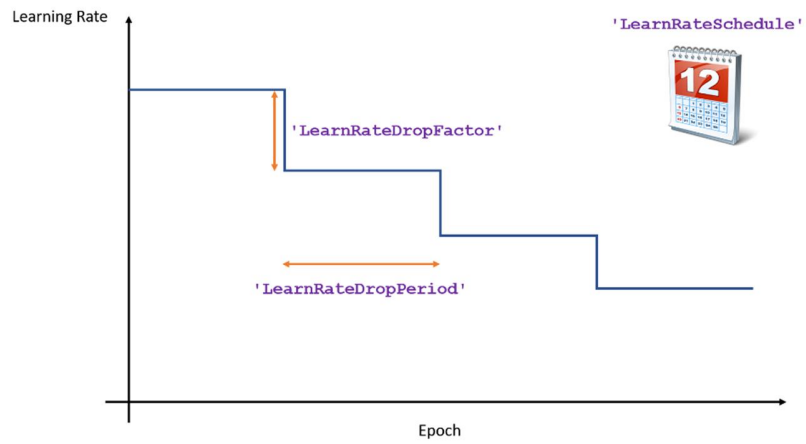
*You can have a fixed learning rate for the whole training.*

5.



*Or you can start with a higher learning rate and periodically decrease it as the training progresses.*

6.



This is called a **learning rate schedule** and can be controlled with the options shown here.