Weka

Working with Weka

Simple Neural Network (NN)

```
1.  Explorer
2.  Preprocess
3.  Open File (csv or arff): diabetes.arff
4.  Choos filter -> filters -> unsupervised -> attributes -> Normalize ->
Apply
5.  Classify -> Choose
6.  Classifier -> functions -> MultilayerPerceptron
7.  Select Test Option
8.  Start
```

Fine Tuning

```
- Click on the MultilayerPerceptron , parameters form will pop up.
- GUI -> True , to see the visualization.
- Training Time: how many times to train the model.
- Hiddenlayrs : how many hidden layers.
- Seed: the initialization state of a random number generator.
- NormalizeAttributes: it will normalize attributes befor training.
- LearningRate: These algorithms may use a learning rate to decide by how
    much would you update the network parameters on each iteration.
- momentum: In neural network optimization, momentum can be seen as a
measure
    of how much the parameters are moving in a certain direction. By
adding momentum, you can reduce the oscillations and noise in the gradient
descent algorithm, and increase the speed and stability of the
convergence.
```