Documentation

System requirements

- Intel core i3 and above
- 1 gb of RAM
- Windows 7, 8.1,10 and above or linux

The accuracy achieved with the Linux version is found to be better compared to the windows version probably due the os specific implementation of the shuffling libraries. The difference is found to be around 2%. Windows version has a gui is is faster compared to Linux version due to the post production optimization done by Qt tools and libraries. For windows both 32 bit and 64 bit version in provided but the 32 bit version may have some bugs, its recommended to use the 64 bit version.

Gui version for Windows (10/8.1/8/7):-

The windows version supports windows 7 and above, it does not support windows vista and xp.

How to use the software :-

1. Click on the Classifier.exe, open a window like this.
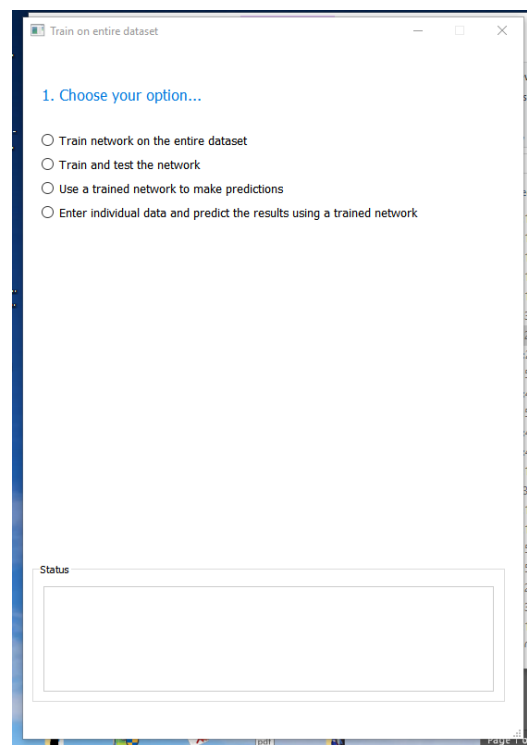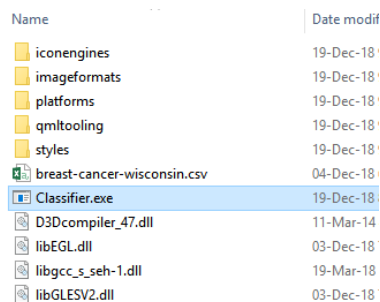
2. There are 4 options in this window
   a. Train network on the entire dataset.
   b. Train and test the network
   c. Use a trained network to make predictions
   d. Enter data and predict the result using a trained network.

NOTE :- THE DATASETS MUST BE IN THE SAME DIRECTORY AS THAT OF THE CLASSIFIER

Option a : It first checks if a trained network file is present in the directory, if it is present it retrains the network else if the network file is not available than it creates a network file and trains it on a dataset. The training is done on the entire dataset. No train and test data division is created.

NOTE :- SETTING THE NUMBER OF THREADS

After clicking on the start button the network is loaded and after loading is complete than a new option is created which is for entering the no of threads. you can decide to allow the software to select the no of threads automatically or else you can manually enter the no of threads manually. If your cpu is powerful enough you can select 10 to 15 threads else if cpu is old than the software will set the no of threads to the no of physical no fo threads present in the cpu.

Option b : The second option also retrains a network if network file is available in the directory. This options divides the dataset into train dataset and test dataset. The training of the network is done on the train dataset and the accuracy of the network is checked with the help of the test dataset. The ratio between train and test dataset is selected in the data division option.

Option c : This option is for making prediction using a trained network file. The results are saved in a file called prediction_result.csv

Option d : the forth option is to make prediction on user entered data.

Train on entire dataset   —   □   ✕

1. Choose your option...

○ Train network on the entire dataset

○ Train and test the network

○ Use a trained network to make predictions

◉ Enter individual data and predict the results using a trained network

2. Select network file...

| alukdar/Desktop/project v2/Windows/Classifier 64bit/network-0020181220043335.csv | Browse |

| Stop | 38,2,77,0,38,7,39,38,0, | Go! |

enter the 9 digit input in this format:- a0,a1,a2,a3,a4,a5,a6,a7,a8,

Status

```
Result for
53.000000,8.000000,77.000000,0.000000,28.000000,0.000000,23.000000,48.000000,24.00
0000, is 4.000000

Result for
38.000000,2.000000,77.000000,0.000000,38.000000,7.000000,39.000000,38.000000,0.000
000, is 1.000000
```