

## Installation

- Require packages
  1. Anaconda python 3.6
- How to run

use command `python main.py` under the path `./HW3` with terminal, or any other compiler open `./HW3/main.py` just like Jupyter Notebook, pycharm and run it.

After running the code **accuracy curve**, **loss curve** and **decision region** will plot and save at path : `./HW3/`

## How to use

For convenient to use, I let the neural network construct by neurons automatically, in **main.py** line:29, 30 we can define our neurons with custom number of hidden layer just like `neurons = [256, 64, 32, ...]` (number of hidden layer 1, 2, 3, ...'s neurons) and `hidden_activation = 'sigmoid' or 'relu'` and whether to load weight or save weight `load_weight = True or False`, `save_weight = True or False`

**main.py** line:24

`shuffle = True or False` : whether to shuffle the data

## others

I have save the best performance weight. If you want to try this weight you should use the following setting

`EPOCHS = 3`

`neurons = [256]`

`hidden_activation = 'sigmoid'`

`load_weight = True`