

#1 SPOT Question for Multi-Layer Perceptron

For the Python Code developed for HMM, do the following controlled experiment and record the observations

Control Parameter	Description
Hidden Layers	Number of hidden layers
Neurons per Layer	Number of neurons in each layer
Activation Function	ReLU, tanh, logistic
Learning Rate	Step size for weight update
Epochs	Number of training iterations

Exp No	Hidden Layers	Neurons	Activation	Learning Rate	Epochs	Accuracy	Loss	Observation
1	1	32	ReLU	0.01	50			
2	2	64	ReLU	0.01	100			
3	2	128	tanh	0.001	100			
4	3	128	ReLU	0.001	150			
5	3	256	logistic	0.0001	200			

#2 SPOT Question for Hidden Markov Model

For the Python Code developed for HMM, do the following controlled experiment and record the observations

Control Parameter	Description
Number of Hidden States	Number of activity classes
Covariance Type	full, diagonal
Number of Iterations	Training iterations
Initialization Method	Random / uniform initialization

Exp No	Hidden States	Covariance Type	Iterations	Log Likelihood	Accuracy	Observation
1	2	diag	50			
2	3	diag	100			
3	3	full	100			
4	4	full	150			
5	5	diag	200			