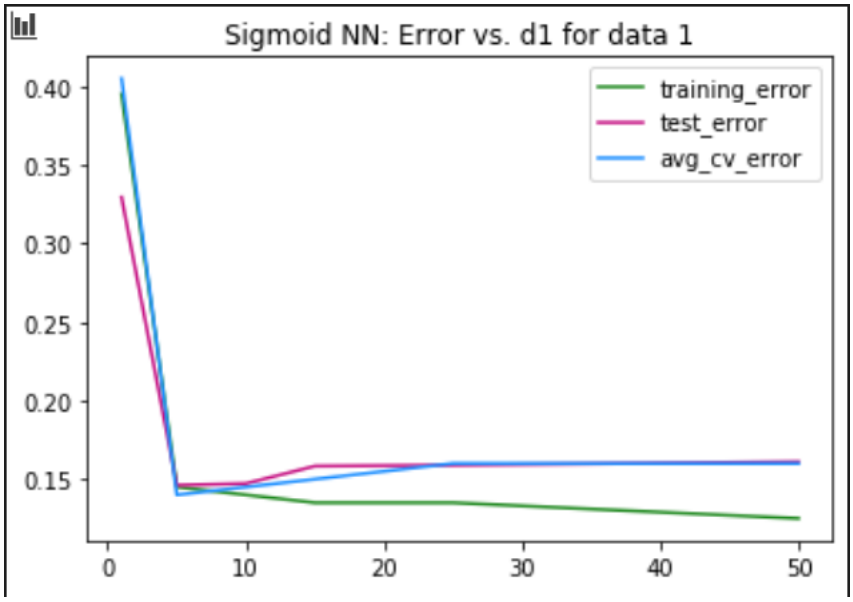
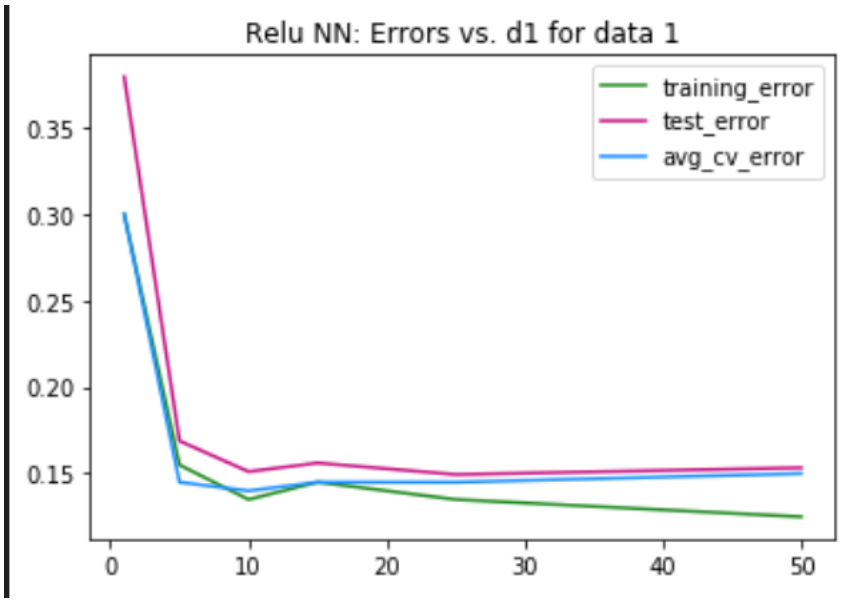
1. NN with Sigmoid for Synthetic Data.

   Chosen d1: 5
   Corresponding Training error: 0.145
   Corresponding Test error: 0.1461111111111111
   Corresponding Training time: 2.0751621119998163



NN with ReLU for Synthetic Data.

Chosen d1: 10
Corresponding Training error: 0.135
Corresponding Test error: 0.1511111111111111
Corresponding Training time: 1.8778088360004404

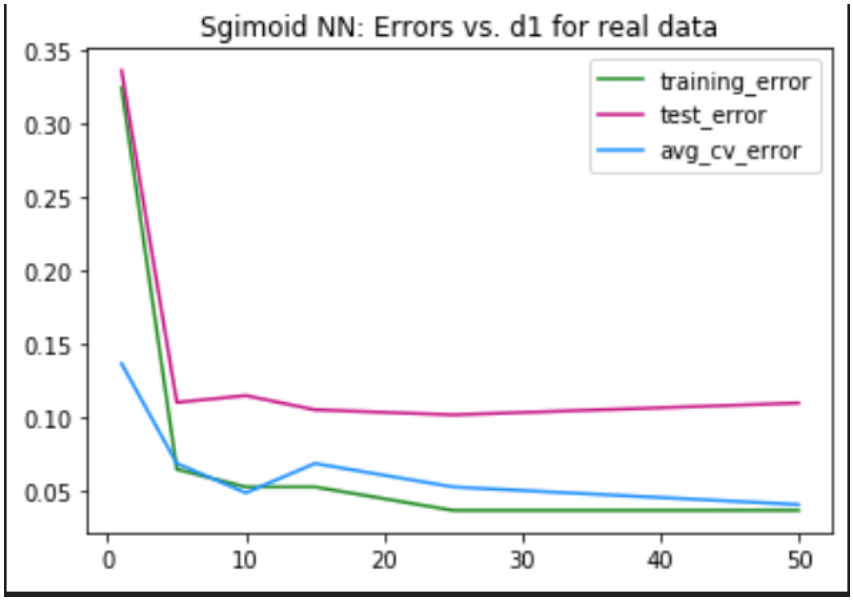


Summarize for synthetic data:

Algorithm	Parameters selected	Training Error	Test Error	Training Time
Neural net, ReLU units	$d_1 = 5$	0.145	0.1461111111	2.07516211
Neural net, sigmoid units	$d_1 = 10$	0.135	0.151111111	1.877808836

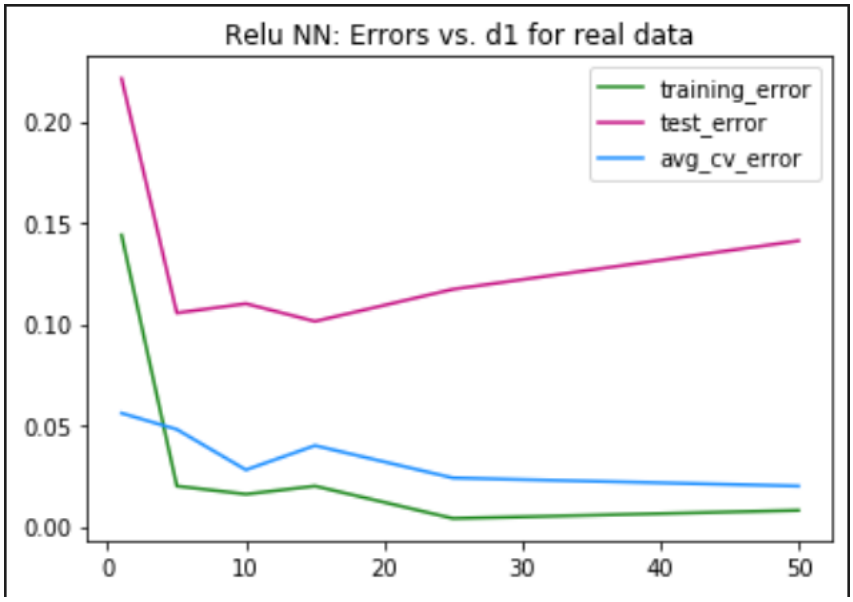
2. NN with Sigmoid for Real Data:

Chosen d1: 50
Corresponding Training error: 0.036
Corresponding Test error: 0.1091703056768559
Corresponding Training time: 4.059085118000439



NN with ReLU for Real Data:

Chosen d1: 50
Corresponding Training error: 0.19
Corresponding Test error: 0.27666666666666667
Corresponding Training time: 4.182522697999957



Summarize for real data:

Algorithm	Parameters selected	Training Error	Test Error	Training Time
Neural net, ReLU units	$d_1 = 50$	0.036	0.109170305	4.059085118
Neural net, sigmoid units	$d_1 = 50$	0.19	0.2766666	4.18252269