Small data	Epochs	sklearn Acc		Epoch	Self-code Acc
('Accuracy: ', 0.48463157894736841)	1	0.4919298246		1	0.450947
('Accuracy: ', 0.93108771929824563)	11	0.9372631579		11	0.456982
('Accuracy: ', 0.94343859649122808)	21	0.9524210526		21	0.57207
('Accuracy: ', 0.95452631578947367)	31	0.9614035088		31	0.751018
('Accuracy: ', 0.95466666666666666)	41	0.969122807		41	0.842807
('Accuracy: ', 0.9618245614035088)	51	0.9688421053		51	0.893193
('Accuracy: ', 0.9644912280701754)	61	0.9712280702		61	0.910596
('Accuracy: ', 0.96603508771929825)	71	0.973754386		71	0.918035
('Accuracy: ', 0.97235087719298241)	81	0.974877193		81	0.922386
('Accuracy: ', 0.97515789473684211)	91	0.9755789474		91	0.925895
	101	0.9759508772		101	0.926737
('Accuracy: ', 0.49192982456140349)					
('Accuracy: ', 0.9372631578947368)					
('Accuracy: ', 0.95242105263157895)					
('Accuracy: ', 0.96140350877192982)					
('Accuracy: ', 0.96912280701754383)					
('Accuracy: ', 0.96884210526315795)					
('Accuracy: ', 0.97122807017543855)					
('Accuracy: ', 0.97375438596491226)					
('Accuracy: ', 0.97487719298245612)					
('Accuracy: ', 0.9755789473684211)					
('average accuracy: ', 0.97536842105263166)					

sklearn Acc vs. Self-code Acc

Large data	Epochs	Accuracy
('Accuracy: ', 0.097199999999999995)	1	0.0972
('Accuracy: ', 0.4657)	11	0.4657
('Accuracy: ', 0.82389999999999997)	21	0.8239
('Accuracy: ', 0.89059999999999995)	31	0.8906
('Accuracy: ', 0.92169999999999996)	41	0.9217
('Accuracy: ', 0.93610000000000004)	51	0.9361
('Accuracy: ', 0.94820000000000004)	61	0.9482
('Accuracy: ', 0.95509999999999995)	71	0.9551
('Accuracy: ', 0.96209999999999996)	81	0.9621
('Accuracy: ', 0.96609999999999996)	91	0.9661
('Best accuracy: ', 0.96609999999999996)	101	0.9691
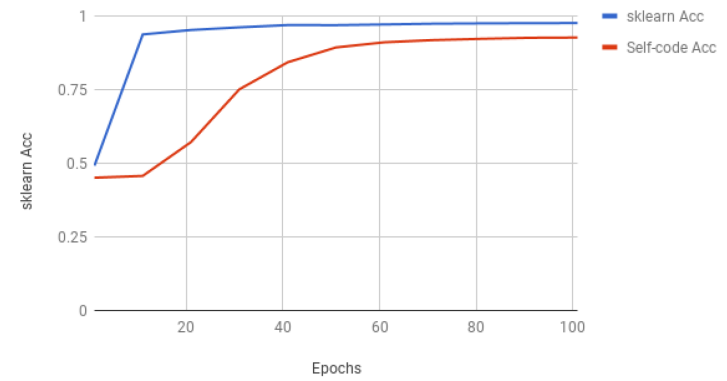
Large Data (sigmoid + softmax) Question 2
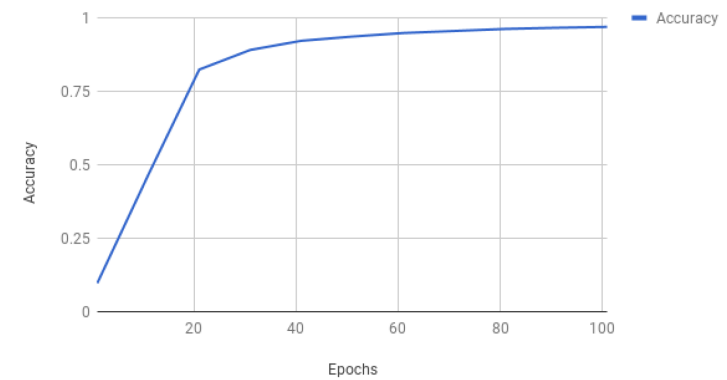
Small Dataset ReLU		Small Dataset Sigmoid	
Epoch	Accuracy	Epoch	Accuracy
1	0.754807	1	0.450947
11	0.950175	11	0.456982
21	0.965474	21	0.57207
31	0.971789	31	0.751018
41	0.964772	41	0.842807
51	0.969684	51	0.893193
61	0.976421	61	0.910596
71	0.976281	71	0.918035
81	0.977965	81	0.922386
91	0.978947	91	0.925895
101	0.981895	101	0.926737
111	0.981754	111	0.927158
121	0.982175	121	0.930386
131	0.980491	131	0.930947
141	0.981754	141	0.932772
151	0.981895	151	0.935298
161	0.982175	161	0.936421
171	0.981895	171	0.936982
181	0.982035	181	0.936842
191	0.981895	191	0.937544
201	0.981614	201	0.938105
BEST	0.9821754386		

Small Dataset (Sigmoid activation) Question 1

Small Dataset (ReLU activation) Question 1

Large dataset ReLU		Large Dataset Sigmoid	
Epoch	Accuracy	Epoch	Accuracy
1	0.0786	1	0.11
11	0.1693	11	0.15
21	0.4484	21	0.25
31	0.5366	31	0.31
41	0.5611	41	0.47
51	0.5857	51	0.56
61	0.628	61	0.66
71	0.676	71	0.73
81	0.7419	81	0.75
91	0.8168	91	0.74
101	0.8421	101	0.73
111	0.8566	111	0.73
121	0.8679	121	0.76
131	0.8769	131	0.77
141	0.8822	141	0.78
151	0.8878	151	0.79
161	0.8915	161	0.79
171	0.8938	171	0.78
181	0.8966	181	0.78
191	0.8997	191	0.8
201	0.9014	201	0.81
211	0.9034	211	0.82
221	0.9055	221	0.82
Best	0.9055	231	0.82
		241	0.83
		251	0.84
		261	0.85
		271	0.84
		281	0.83
		291	0.84
		301	0.85
		311	0.85
		321	0.85
		331	0.85
		341	0.85
		351	0.84
		361	0.84
		371	0.84
		381	0.85

Large Dataset (ReLU activation) Question 1

Large Data (Sigmoid) Question 1

			391	0.86	
			401	0.86	
			411	0.85	
			421	0.85	
			431	0.85	
			441	0.85	
			451	0.85	