Logistic Regression with PyTorch

Accuracy of training data,
no regularization

Batch size \ Epochs	20	50	100	200	500
256	0.8466	0.8568	0.8521	0.8553	0.8384
128	0.8573	0.8551	0.8456	0.8482	0.8531
64	0.8554	0.8594	0.8506	0.8314	0.8613
32	0.8594	0.8373	0.8463	0.8205	0.8205
16	0.8141	0.8388	0.8408	0.8460	0.8429

Accuracy of test data,
no regularization

Batch size \ Epochs	20	50	100	200	500
256	0.8439	0.8519	0.8500	0.8527	0.8292
128	0.8542	0.8549	0.8447	0.8470	0.8515
64	0.8538	0.8587	0.8466	0.8269	0.8572
32	0.8496	0.8345	0.8348	0.8189	0.8106
16	0.8064	0.8348	0.8307	0.8473	0.8371

Accuracy of training data,
L_2 regularization

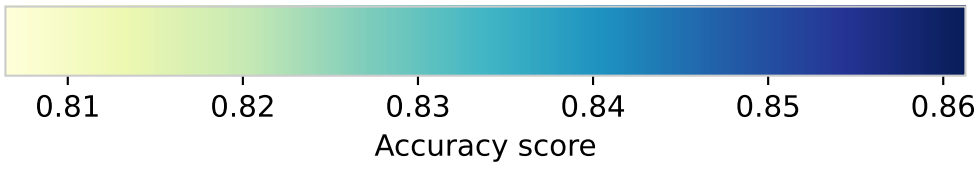
Batch size \ Epochs	20	50	100	200	500
256	0.8464	0.8568	0.8518	0.8550	0.8383
128	0.8573	0.8548	0.8455	0.8482	0.8529
64	0.8554	0.8594	0.8505	0.8311	0.8610
32	0.8592	0.8372	0.8463	0.8204	0.8200
16	0.8137	0.8386	0.8408	0.8457	0.8427

Accuracy of test data,
L_2 regularization

Batch size \ Epochs	20	50	100	200	500
256	0.8439	0.8519	0.8496	0.8519	0.8292
128	0.8542	0.8549	0.8447	0.8470	0.8515
64	0.8542	0.8587	0.8466	0.8265	0.8576
32	0.8500	0.8341	0.8341	0.8186	0.8095
16	0.8064	0.8348	0.8307	0.8473	0.8367

Accuracy of training data,
L_1 regularization

Batch size \ Epochs	20	50	100	200	500
256	0.8466	0.8568	0.8521	0.8553	0.8384
128	0.8572	0.8551	0.8455	0.8482	0.8531
64	0.8554	0.8594	0.8506	0.8314	0.8613
32	0.8594	0.8373	0.8463	0.8206	0.8205
16	0.8141	0.8388	0.8408	0.8459	0.8429

Accuracy of test data,
L_1 regularization

Batch size \ Epochs	20	50	100	200	500
256	0.8439	0.8519	0.8500	0.8527	0.8292
128	0.8542	0.8549	0.8447	0.8470	0.8515
64	0.8538	0.8587	0.8466	0.8269	0.8572
32	0.8496	0.8345	0.8348	0.8189	0.8106
16	0.8064	0.8345	0.8307	0.8473	0.8371