

REPORT OF THE ASSIGNMENT

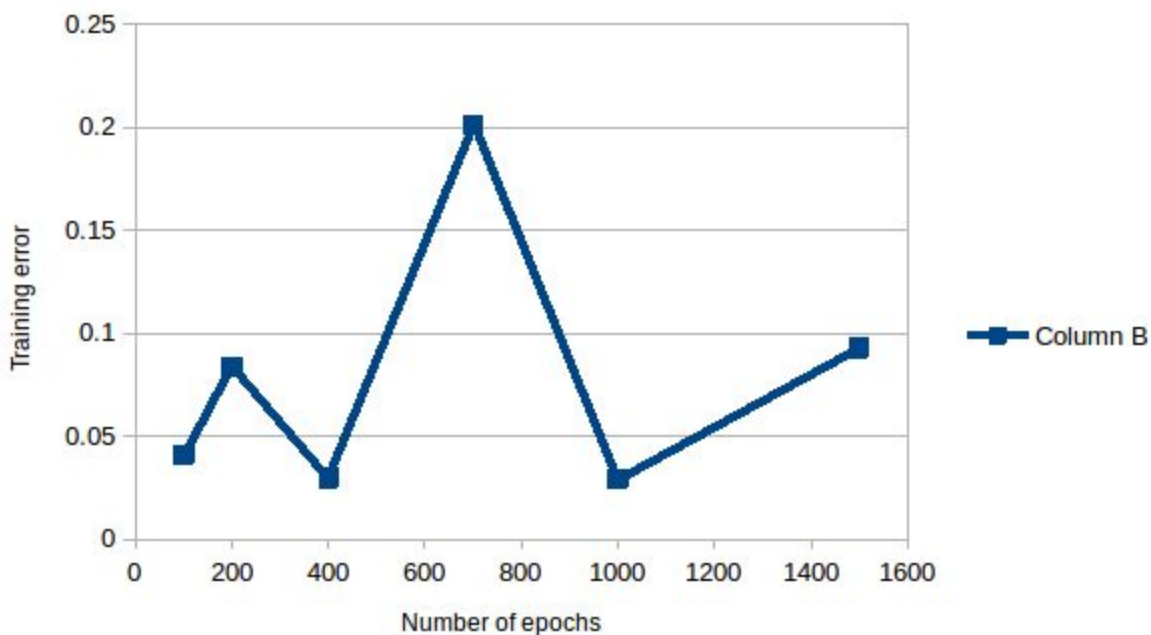
In the assignment various loss functions and regularisers were written, the code run multiple times and a maximum accuracy of 0.98780 and 0.92911 for both the competitions respectively. The results for various parameters and error variation by varying them is mentioned below-

- 1) Error is the following order keeping other parameters constant-
percptron_loss(0.653 150)>logistic_loss(0.97560 32)>square_hinge_loss(0.98780)
- 2) There was no significant effect of increasing the number of minimisation iterations.
- 3) Loss using L2 regularized > Loss using L4 regulariser
- 4) 60-70 in optimal range for batch size, reducing or increasing the batch size lead to small increase in error.

The plots shown below are variation of Train error with no. of iteration -

Train dataset 1:

1. For square_hinge_loss, L2 regularizer, batch_size=20, C=1



2. logistic_loss, L2 regularizer, batch_size=60, C=1

REPORT OF THE ASSIGNMENT

