

CHO404 Assignment

Full Marks: 20

Submission and Viva (on an individual basis, not group-wise) will be scheduled sometime between 6th and 10th November, 2023.

Demonstrate with code and plot:

1. Univariate Linear regression weight update rules: both the cases of Batch gradient descent and Stochastic gradient descent
2. Classification with linear function: using data similar to Fig. 18.15, show Fig. 18.16
3. Classification with logistic function: using data similar to Fig. 18.15, show Fig. 18.18
4. k-NN model (similar to Fig. 18.26)
5. Locally weighted regression (similar to Fig. 18.28d)
6. Support Vector Machine (similar to Fig. 18.30)

For solving quadratic programming problem, one can use CVXOPT or anything similar.