Analysis Report

1 Performance of predictor using logistic regression for predicting whether a student can get an admission in the institution with regularizer

Ans. Using gradient descent for logistic regression with $\alpha = 0.01$ and 1000 epoch and regularization parameter $\lambda = 100$, 21 out of 30 predictions were found to be correct with accuracy of 70 percent for our classification task with y = 0 below line and y = 1 above line. The value of parameter after gradient descent were = [[-0.01708493 , 0.11274204 , 0.10827061]]

2 Performance of predictor using logistic regression which will predict the acceptance or rejection of the microchip given the two test results with regularizer

Ans. Using gradient descent for logistic regression with $\alpha = 0.01$ and 1000 epoch and regularization parameter $\lambda = 100$, 16 out of 36 predictions were found to be correct with accuracy of 40 percent for our classification task with y = 0 below line and y = 1 above line. This could be improved if we can fit circular equation The value of parameter after gradient descent were = [[-0.02398727 , -0.02458423 , -0.00977045]]

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