

Solution 5:

B.

i) $y_{\text{hat}} = 1.0 / (1.0 + e^{-(\theta_0 + \theta_1 * x_1 + \theta_2 * x_2)})$

Theta = [-1.3504601 1.99641842 0.6565945]

Cross Entropy error = $(-y * \log(h) - (1 - y) * \log(1 - h)).\text{mean}()$

ii) Cross entropy loss = 0.5179013907179949

iii)

Accuracy: 0.8333333333333334

Precision: 0.75

Recall: 1.0