**CPE383 Machine Learning: Quiz6**

1. 2.5 hours. Modify “Logistic Regression Gradient Descent.ipynb” for Iris classification to use the cost function and Jacobian function and the “BFGS” optimization method in SciPy library to:

a. 20 points. Report the total classification accuracy (score) for the Test data by finding the highest probability class as the output. Text

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b. 5 points. Print the confusion matrix for the test data of the 3 classes found by your own implementation of the logistic regressor. You can use Sklearn’s library; Text

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c. 5 points. Print the confusion matrix for the test data found by sklearn’s logistic regressor.

Graphical user interface, text

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d. 10 points. For each mis-classified data sample, show the classification probability for class 0, 1, and 2 (we want to see that the probabilities are hovering around the 0.2 to 0.9 range for these data points).

Text

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2. 30 points. 3 hours. Using the Kaggle open source dataset to predict Attrition (Will an employee continue to stay with our company?) based on several factors using Logistic Regression. Make sure you show the confusion matrix. In the case of a Yes/No classification like this problem it shows false positives and false negatives. The data is available in: Text

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