ENGR 421

Homework 3 Discrimination by Regression

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1. Importing necessary libraries.
2. Generating random data points with parameters which are given. Then plotting the data.
3. Estimating classes and samples number.
4. Estimate Y\_truth with using one-of-Kencoding
5. Defining sigmoid and safelog functions.
6. Define two function for find W and w0 with using gradient.
7. Defining epsilon and learning parameter.
8. Calculation parameters with in iteration with using learning rate, epsilon, gradient function, sigmoid functions and safe log function.
9. The sum of squad error is used in iteration for minimizing error.
10. Calculation covariance matrix.
11. Estimate and plotting data points with boundaries.