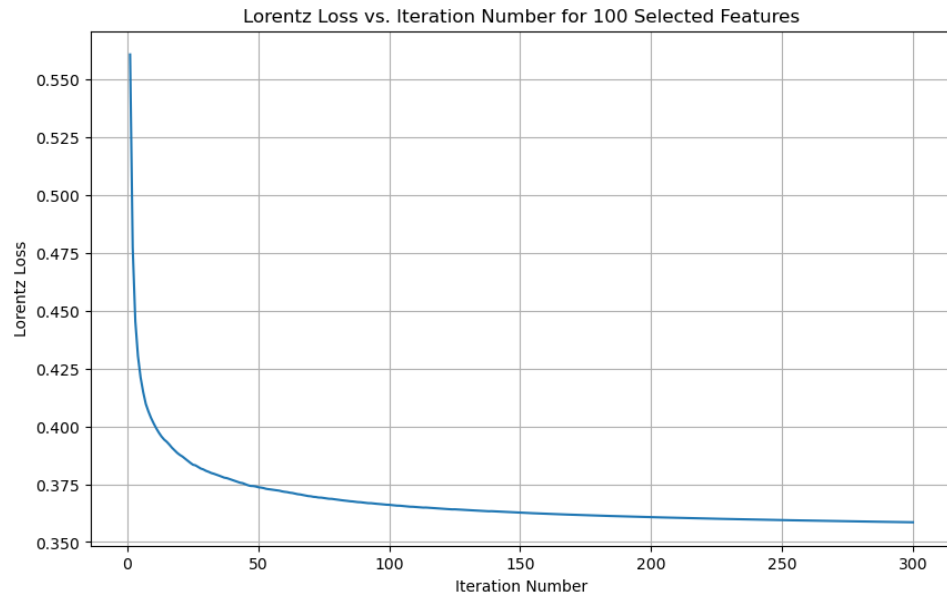# Homework 5

Evan Stansell

(a) Gisette dataset

Lorentz Loss vs. Iteration Number for 100 Selected Features

Misclassification Error for Final Iterations vs. Number of Selected Features

ROC for 100 Features
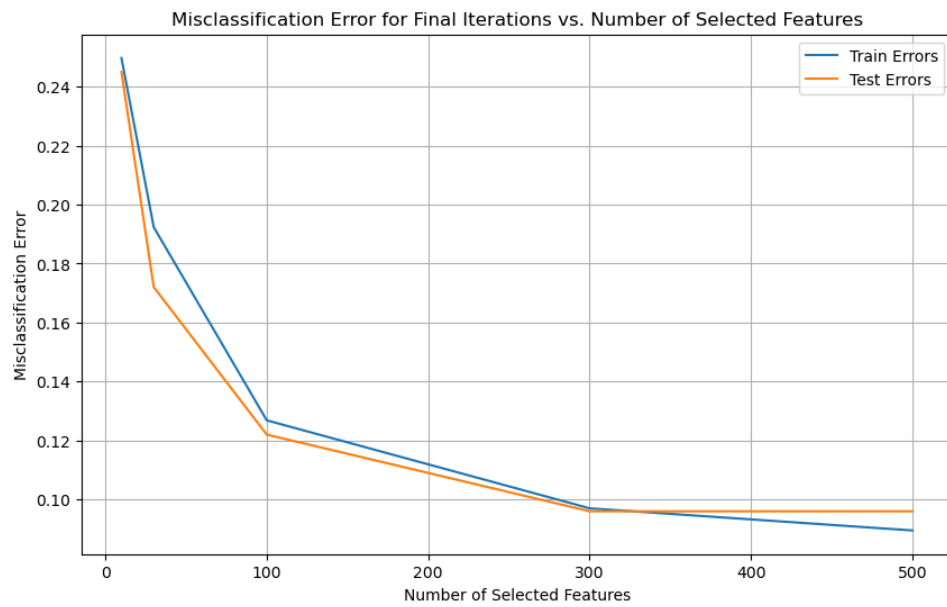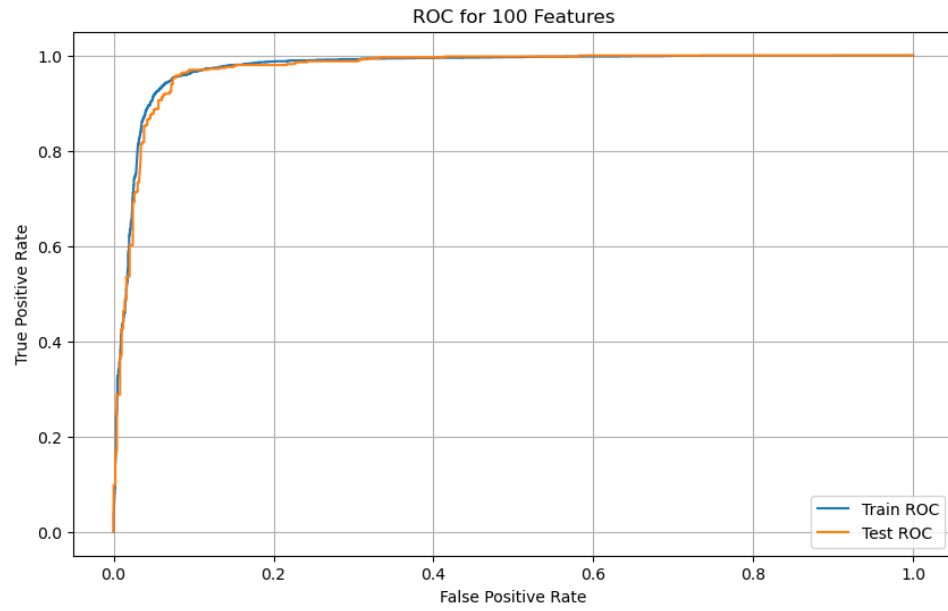
Number of features	Train Misclassification	Test Misclassification
10	0.250	0.245
30	0.192	0.172
100	0.127	0.122
300	0.097	0.096
500	0.090	0.096

(b) Dexter dataset

Lorentz Loss vs. Iteration Number for 100 Selected Features

Misclassification Error for Final Iterations vs. Number of Selected Features

ROC for 100 Features
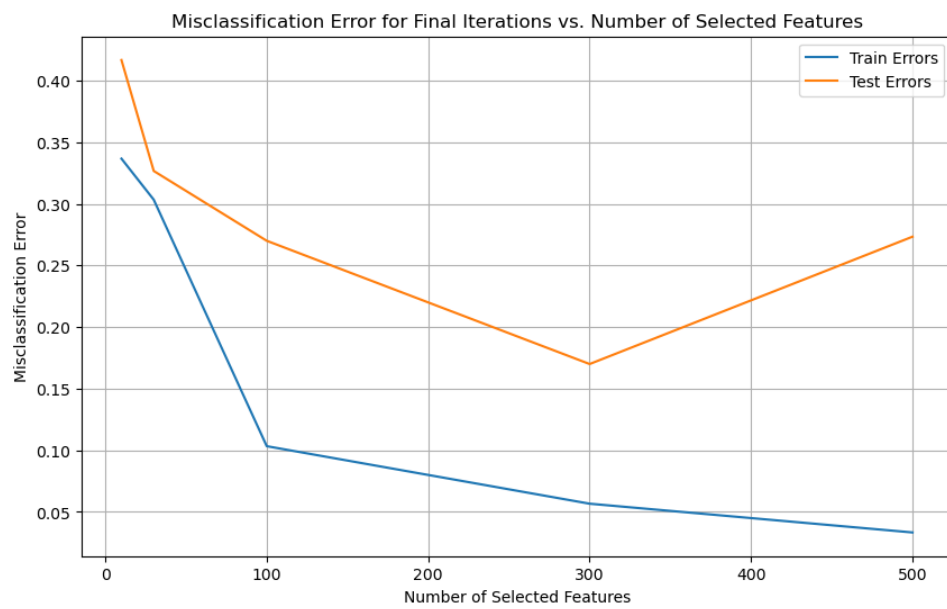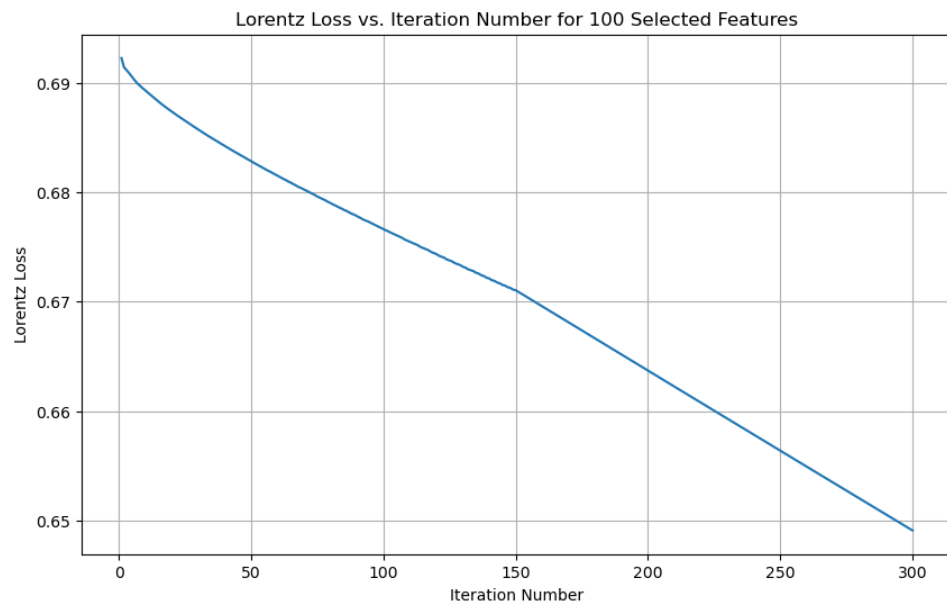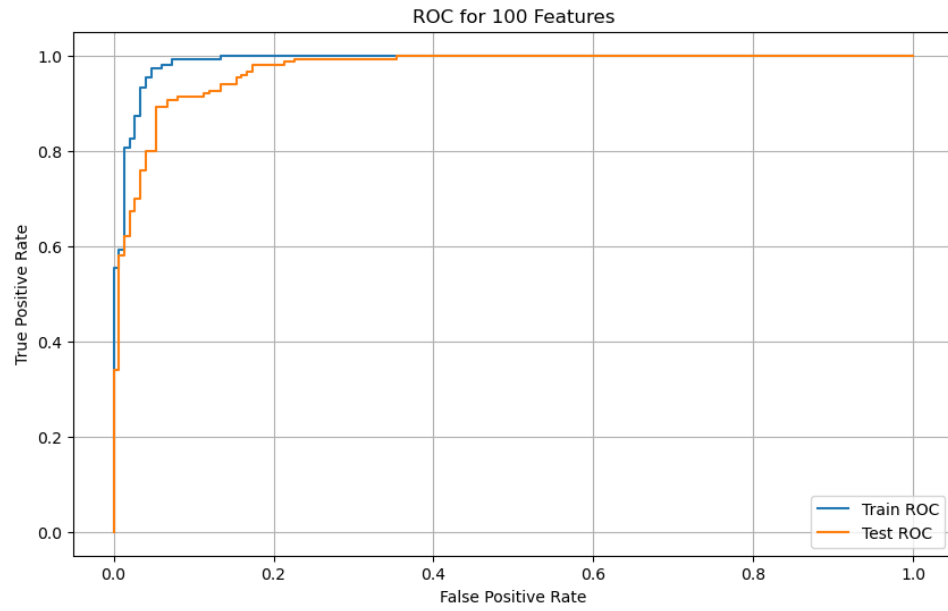
Number of features	Train Misclassification	Test Misclassification
10	0.337	0.417
30	0.303	0.327
100	0.103	0.270
300	0.057	0.170
500	0.033	0.273

(c) Madelon dataset

Lorentz Loss vs. Iteration Number for 100 Selected Features

Misclassification Error for Final Iterations vs. Number of Selected Features

ROC for 100 Features
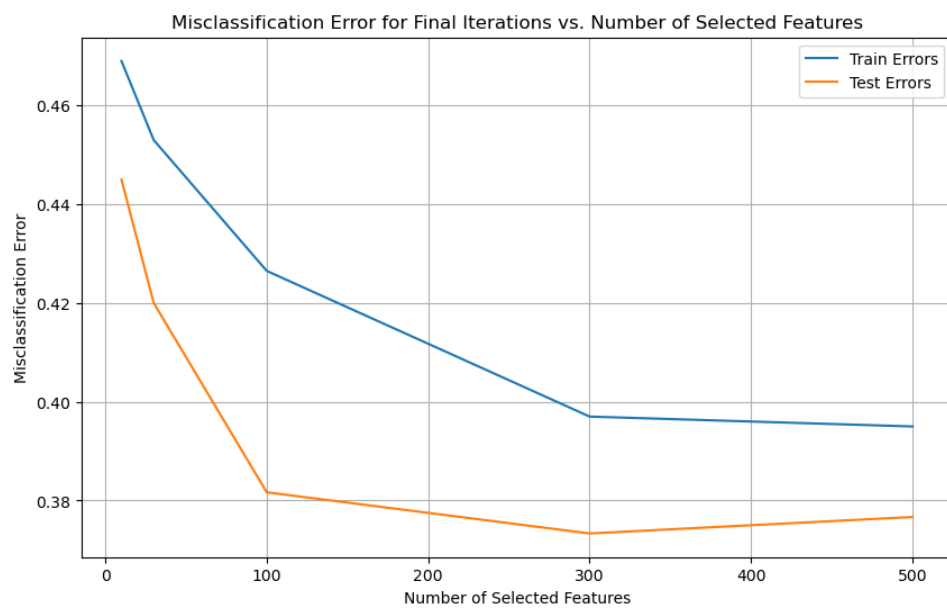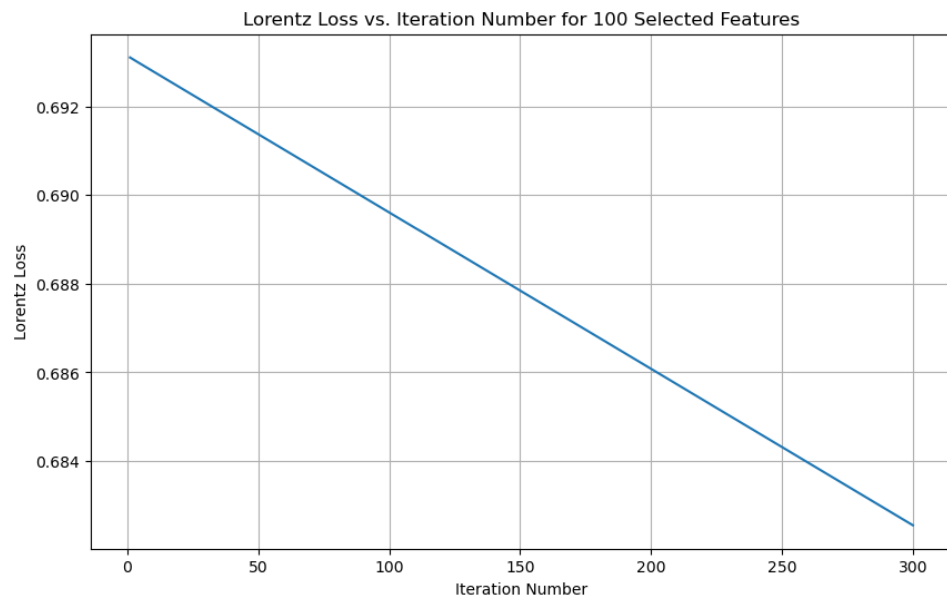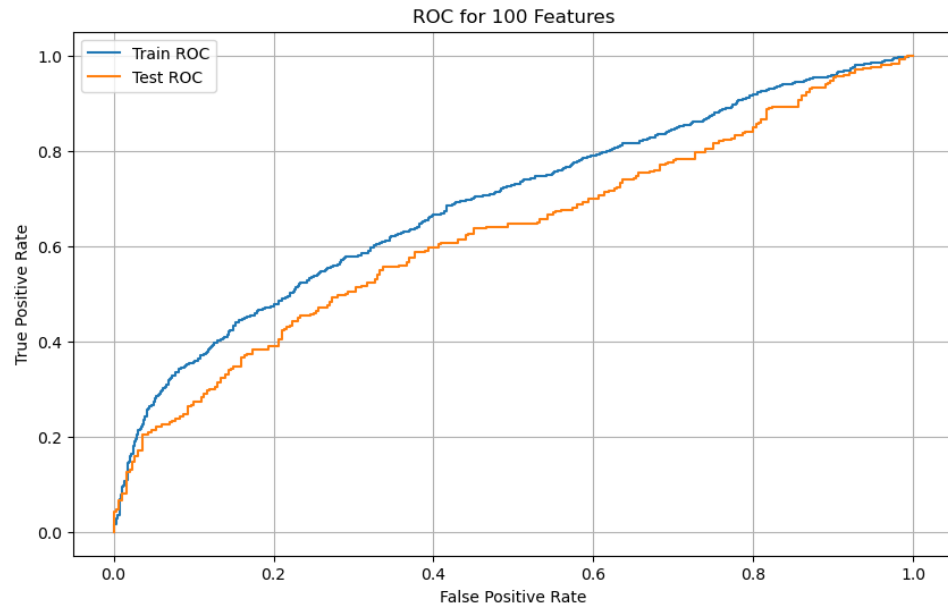
Number of features	Train Misclassification	Test Misclassification
10	0.469	0.445
30	0.453	0.420
100	0.427	0.382
300	0.397	0.373
500	0.395	0.377