

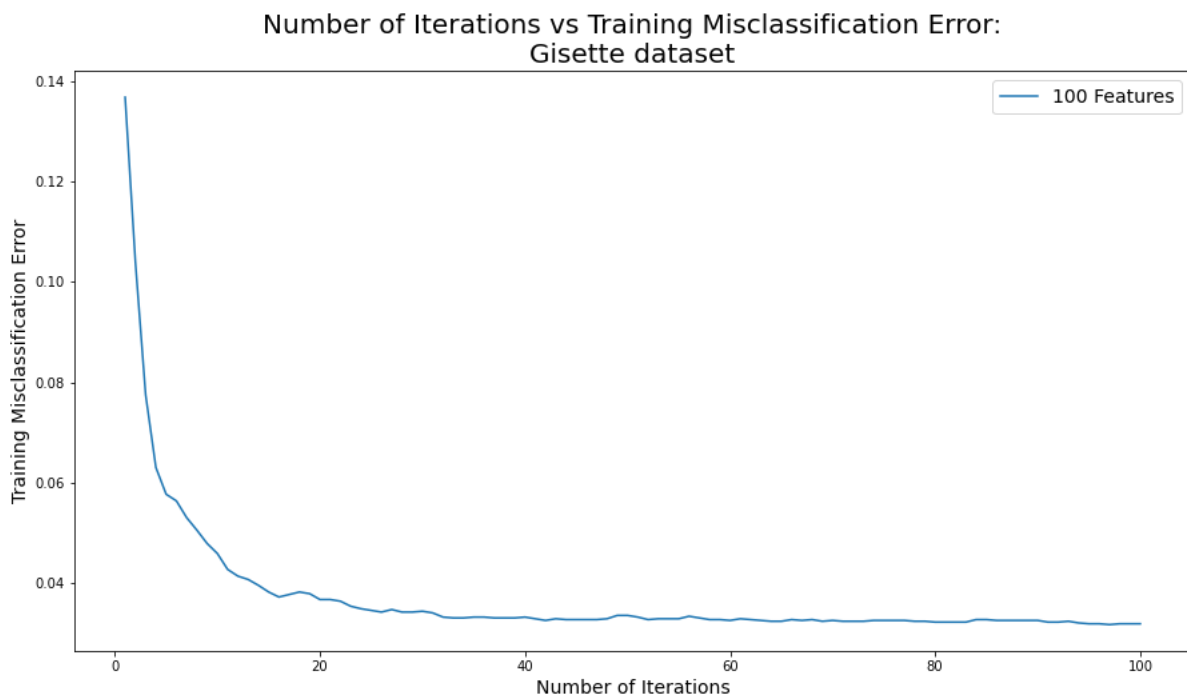
Homework 4

Jarod Klion

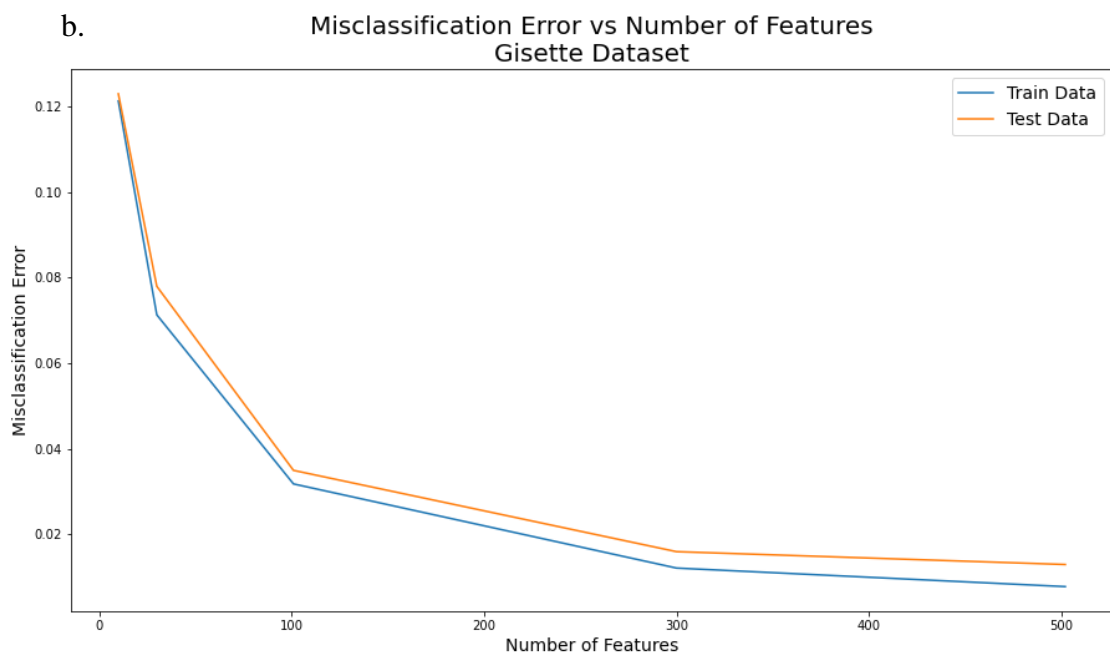
STA5635

1.

a.



b.



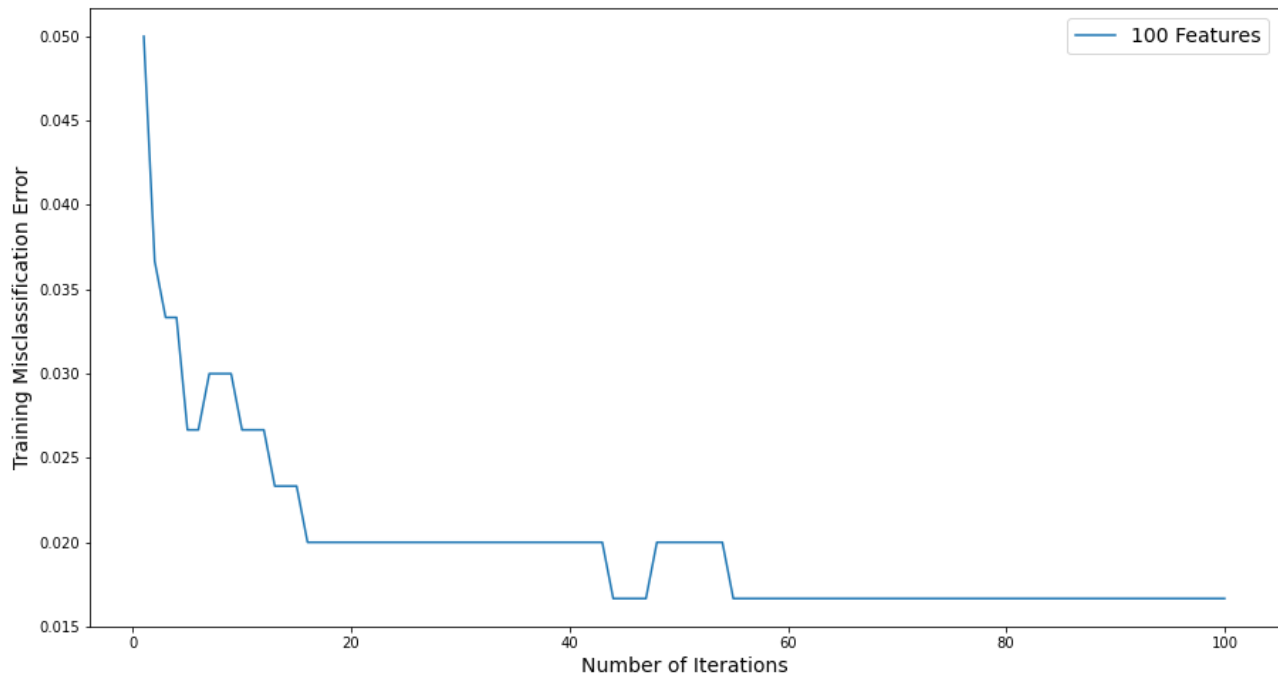
c. Gisette train and test misclassification errors

Lambdas	Train Error	Test Error	Number of Features
0.19	0.1213	0.123	10
0.133	0.0713	0.078	30
0.0877	0.0318	0.035	101
0.0529	0.0122	0.016	300
0.03854	0.0078	0.013	502

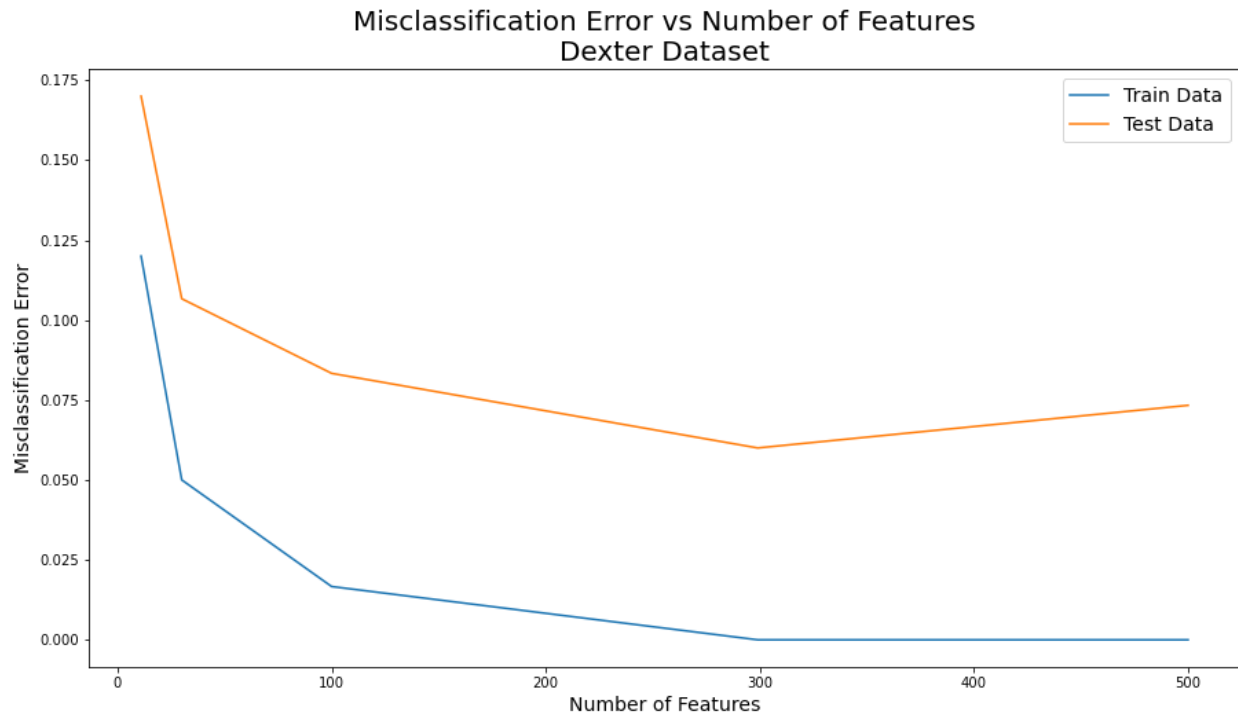
2.

a.

Number of Iterations vs Training Misclassification Error:
Dexter dataset



b.

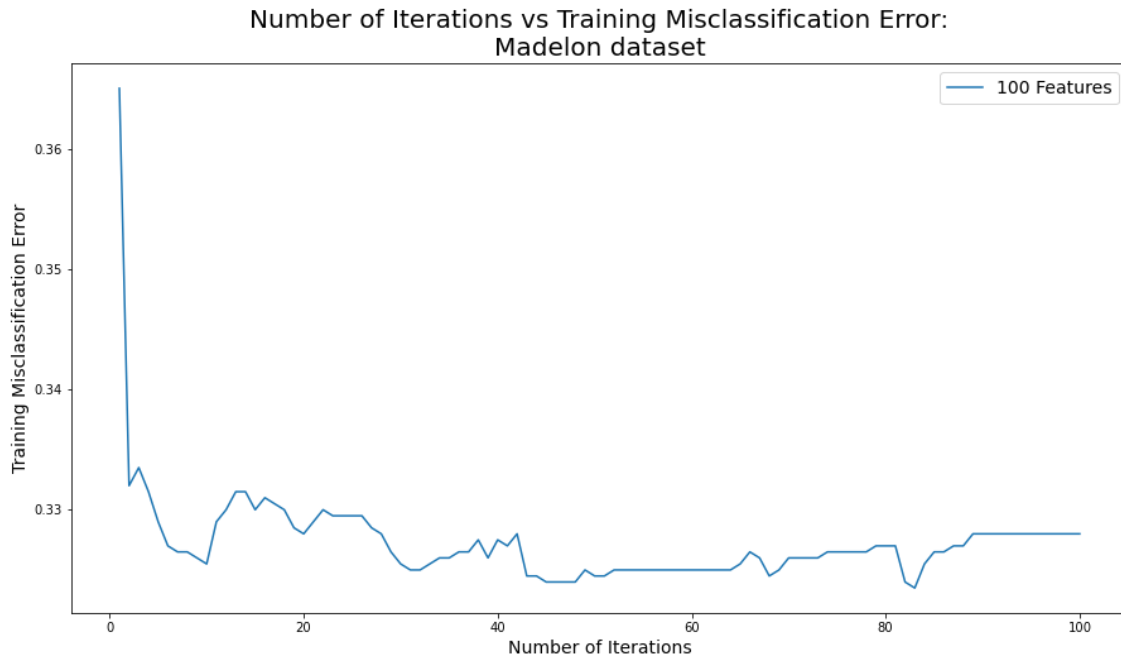


c. Dexter train and test misclassification errors

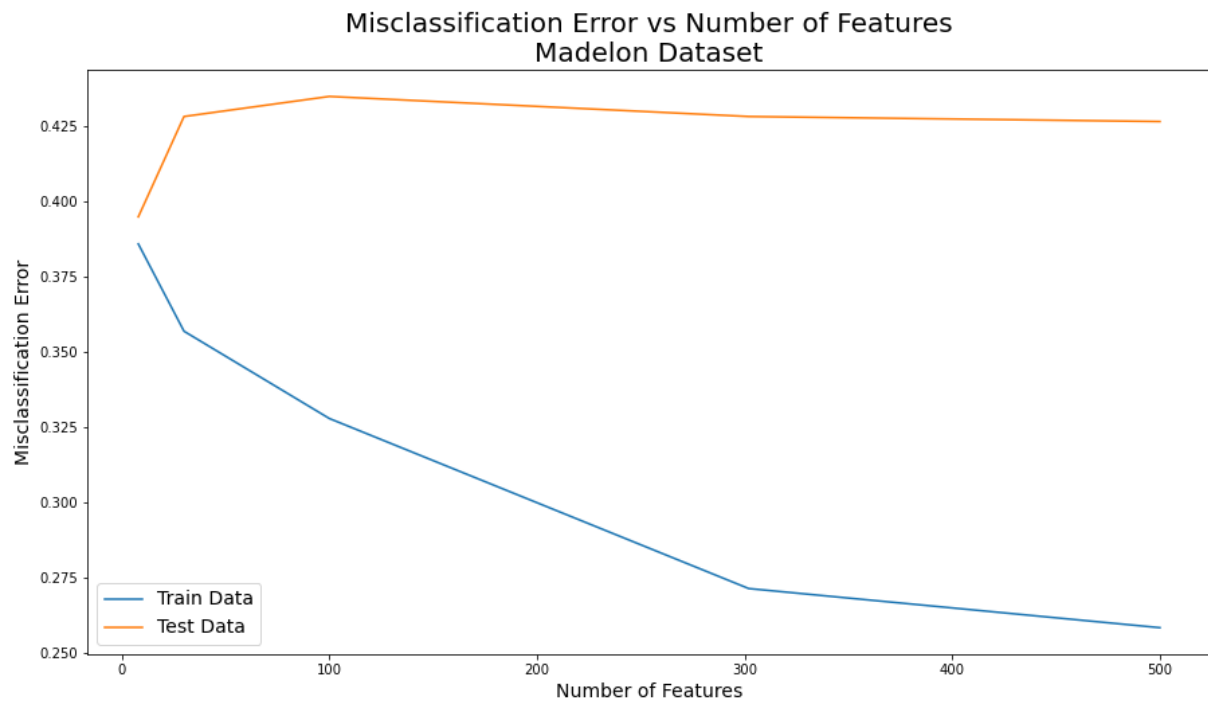
Lambdas	Train Error	Test Error	Number of Features
0.1427	0.1200	0.1700	11
0.098	0.0500	0.1067	30
0.0711	0.0167	0.0833	100
0.05227	0.0000	0.0600	299
0.0466	0.0000	0.0733	500

3.

a.



b.



c. Madelon train and test misclassification errors

Lambdas	Train Error	Test Error	Number of Features
0.0298	0.386	0.3950	8
0.02435	0.357	0.4283	30
0.0173	0.328	0.4350	100
0.00737	0.2715	0.4283	302
4.00E-05	0.2585	0.4267	500