SEIS 763 Machine Learning Team Project Processed Datasets 12/05/2021

# March 2013

# 17-Mar-2013 00:00:00 through 18-Mar-2013 23:59:00

# Table size

521	7

## Data Stats

NumObservations	520
NumTestSets	1
TrainSize	416
TestSize	104

#### **CFM**

0	26
1	77

accuracy	precision	recall	Fscore
0.74038	0	0	0
0.74038	0.74757	0.98718	0.85083

# 17-Mar-2013 00:00:00 through 23-Mar-2013 23:59:00

# Table size

3784	7

## Data Stats

NumObservations	3783
NumTestSets	1
TrainSize	3027
TestSize	756

# Lambda Data Table

8	9	10	11	12
-25.90	-23.38	-19.87	-11.81	-7.72
6.22	4.91	3.13	0	0
19.56	18.34	16.61	11.69	7.59

#### **CFM**

33	203
8	512

accuracy	precision	recall	Fscore
0.7209	0.80488	0.13983	0.23827
0.7209	0.71608	0.98462	0.82915

# 17-Mar-2013 00:00:00 through 30-Mar-2013 23:59:00

# Table size

7409	7

## Data Stats

NumObservations	7408
NumTestSets	1
TrainSize	5927
TestSize	1481

# Lambda Data Table

7	8	9	10	11
-38.99	-37.49	-35.15	-21.04	-18.14
8.10	7.35	6.22	0	0
30.82	30.06	28.85	20.96	18.06

# CFM

47	415
16	1003

accuracy	precision	recall	Fscore
0.70898	0.74603	0.10173	0.17905
0.70898	0.70733	0.9843	0.82314

# March 2016

# 17-Mar-2016 00:00:00 through 18-Mar-2016 23:59:00

# Table size

2043	7

# Data Stats

NumObservations	2042
NumTestSets	1
TrainSize	1643
TestSize	408

# Lambda Data Table

11	12	13	14	15
-15.04	-13.07	-10.20	-5.97	-3.03
5.08	3.91	2.22	0	0
10.08	9.27	8.09	6.08	3.14

## CFM

48	111
15	234

accuracy	precision	recall	Fscore
0.69118	0.7619	0.30189	0.43243
0.69118	0.67826	0.93976	0.78788

# 17-Mar-2016 00:00:00 through 23-Mar-2016 23:59:00

# Table size

7640	7

## Data Stats

NumObservations	7639
NumTestSets	1
TrainSize	6112
TestSize	1527

# Lambda Data Table

12	13	14	15	16
-14.11	-12.36	-9.78	-6.44	-3.96
3.79	2.83	1.41	0	0
10.39	9.60	8.43	6.50	4.02

## SE

12	13	14	15	16
44.34	41.10	37.86	34.48	35.08

# CFM

150	411
61	905

accuracy	precision	recall	Fscore
0.6909	0.7109	0.26738	0.3886
0.6909	0.68769	0.93685	0.79316

# 17-Mar-2016 00:00:00 through 30-Mar-2016 23:59:00

# Table size

14704	7

## Data Stats

NumObservations	14703
NumTestSets	1
TrainSize	11763
TestSize	2940

# Lambda Data Table

12	13	14	15	16
-13.48	-11.85	-9.34	-6.77	-4.22
2.74	1.88	0.59	0	0
10.80	10.03	8.82	6.83	4.28

## SE

12	13	14	15	16
112.87	109.045	102.11	96.01	90.20

# CFM

267	744
114	1815

accuracy	precision	recall	Fscore
0.70816	0.70079	0.26409	0.38362
0.70816	0.70926	0.9409	0.80882

# March 2019

# 17-Mar-2019 00:00:00 through 18-Mar-2019 23:59:00

#### Table size

2528	7

## Data Stats

NumObservations	2527
NumTestSets	1
TrainSize	2022
TestSize	505

#### Lambda Data Table

16	17	18	19	20
-11.40	-8.84	-5.58	-1.71	0
5.04	3.66	1.93	0	0
6.37	5.20	3.66	1.70	0

## SE

16	17	18	19	20
28.39	24.03	19.26	14.55	13.49

## CFM

90	136
32	247

accuracy	precision	recall	Fscore
0.66733	0.7377	0.39823	0.51724
0.66733	0.64491	0.8853	0.74622

# 17-Mar-2019 00:00:00 through 23-Mar-2019 23:59:00

# Table size

9238	7

## Data Stats

NumObservations	9237
NumTestSets	1
TrainSize	7390
TestSize	1847

# Lambda Data Table

14	15	16	17	18	19	20
-23.42	-21.38	-18.45	-14.28	-8.63	-3.37	0
8.19	7.20	5.75	3.73	1.18	0	0
15.26	14.21	12.73	10.57	7.46	3.37	0

## SE

14	15	16	17	18	19	20
52.00	48.64	44.14	38.50	32.95	28.07	29.17

## CFM

372	419
119	937

accuracy	precision	recall	Fscore
0.70872	0.75764	0.47029	0.58034
0.70872	0.691	0.88731	0.77695

# 17-Mar-2019 00:00:00 through 30-Mar-2019 23:59:00

# Table size

18719	7

## Data Stats

NumObservations	18718
NumTestSets	1
TrainSize	14975
TestSize	3743

# Lambda Data Table

10	11	12	13	14	15	16
-46.57	-44.74	-41.91	-37.66	-31.54	-23.29	-10.75
17.26	16.32	14.86	12.65	9.41	4.93	0
29.35	28.46	27.09	25.05	22.16	18.40	10.78

## SE

10	11	12	13	14	15	16
74.62	72.29	68.79	63.82	57.21	49.18	42.40

## CFM

714	871
245	1913

accuracy	precision	recall	Fscore
0.70184	0.74453	0.45047	0.56132
0.70184	0.68714	0.88647	0.77418

# March 2021

# 17-Mar-2021 00:00:00 through 18-Mar-2021 23:59:00

# Table size

2876	7

## Data Stats

NumObservations	2875
NumTestSets	1
TrainSize	2300
TestSize	575

# Lambda Data Table

09	10	11	12	13	14	15	16	17	18
-79.93	-78.50	-76.26	-72.83	-68.25	-62.40	-52.83	-38.19	-22.18	-2.79
44.22	43.40	42.12	40.14	37.47	34.03	28.44	19.89	10.41	0
35.75	35.13	34.16	32.71	30.81	28.39	24.42	18.31	11.78	2.81

## SE

09	10	11	12	13	14	15	16	17	18
32.80	32.25	31.18	29.71	28.20	25.93	22.40	16.64	9.20	1.28

## CFM

235	51
52	237

accuracy	precision	recall	Fscore
0.82087	0.81882	0.82168	0.82024
0.82087	0.82292	0.82007	0.82149

 $Figure \ 1-Cross-Validated \ Deviance \ of \ Lasso \ Fit$ 

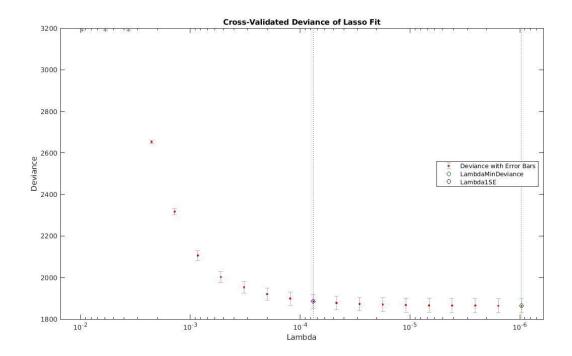
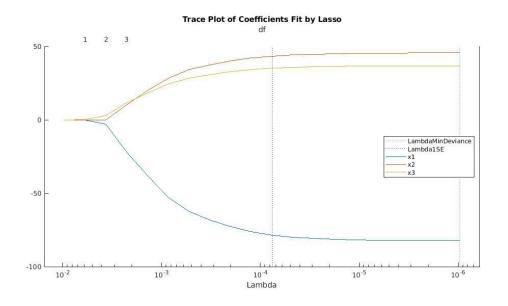


Figure 2 – Trace Plot of Coefficients Fit by Lasso



# 17-Mar-2021 00:00:00 through 23-Mar-2021 23:59:00

# Table size

10065	7

## Data Stats

NumObservations	10064
NumTestSets	1
TrainSize	8052
TestSize	2012

# Lambda Data Table

09	10	11	12	13	14	15	16	17	18
-81.79	-80.08	-77.43	-73.42	-68.43	-61.64	-49.58	-33.15	-14.42	0
48.06	47.05	45.46	43.05	40.01	35.89	28.61	18.71	7.73	0
33.77	33.08	32.01	30.42	28.46	25.79	21.01	14.48	6.72	0.026

## SE

09	10	11	12	13	14	15	16	17	18
68.25	66.72	64.33	62.25	55.58	49.11	40.15	22.94	7.77	2.24

## CFM

817	188
206	801

accuracy	precision	recall	Fscore
0.80417	0.79863	0.81294	0.80572
0.80417	0.80991	0.79543	0.80261

 $Figure \ 1-Cross-Validated \ Deviance \ of \ Lasso \ Fit$ 

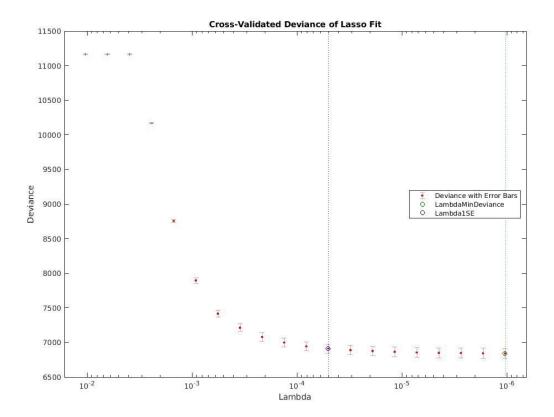
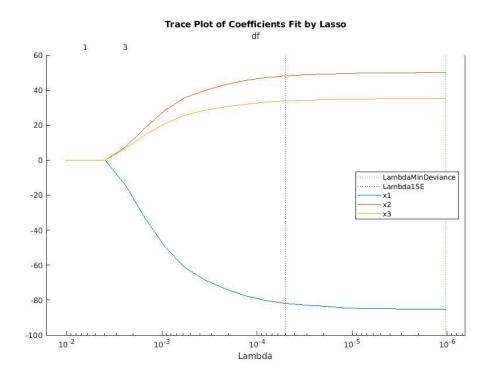


Figure 2 – Trace Plot of Coefficients Fit by Lasso



# 17-Mar-2021 00:00:00 through 30-Mar-2021 23:59:00

# Table size

20108	7

#### Data Stats

NumObservations	20107
NumTestSets	1
TrainSize	16086
TestSize	4021

# Lambda Data Table

02	03	04	05	06	07	08	09	10	11
-92.54	-91.73	-90.90	-90.07	-89.24	-88.40	-87.55	-86.71	-85.86	-84.85
58.48	57.98	57.48	56.96	56.44	55.91	55.38	54.84	54.30	53.65
34.07	33.75	33.43	33.12	32.80	32.50	32.18	31.88	31.57	31.21

## SE

02	03	04	05	06	07	08	09	10	11
50.71	50.24	49.76	49.29	48.81	48.34	47.86	47.39	46.91	46.29

## CFM

1693	328
438	1562

accuracy	precision	recall	Fscore
0.8095	0.79446	0.8377	0.81551
0.8095	0.82646	0.781	0.80308

 $Figure \ 1-Cross-Validated \ Deviance \ of \ Lasso \ Fit$ 

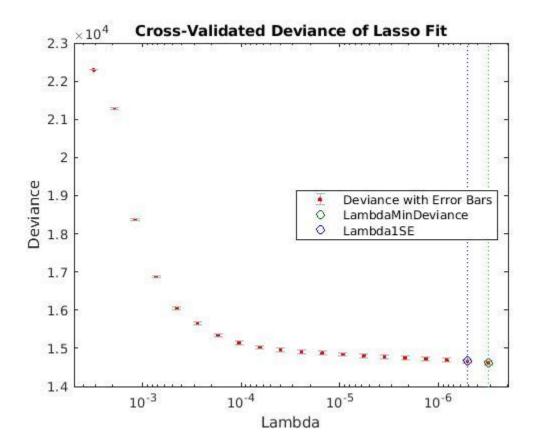
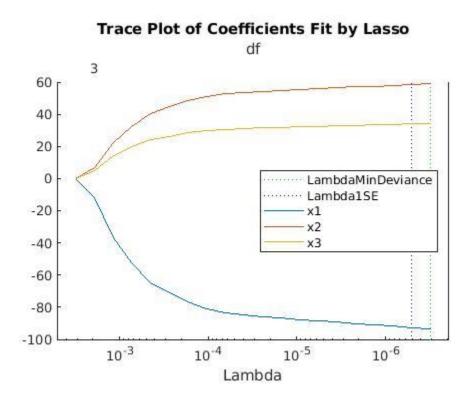


Figure 2 – Trace Plot of Coefficients Fit by Lasso



Note: Red column identifies the programs preferred Lambda.