

1-3-gamma

Features
Maximum number of features considered

Counter with 1-gamma
100

Logistic Regression

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.0222	503	1599	326	722	0.6725	0.62912	0.43373	0.51346
2	100	0.02086	504	1615	304	727	0.67781	0.64569	0.43247	0.51485
3	100	0.02199	577	1599	344	680	0.68	0.62649	0.45003	0.52084
4	100	0.02199	564	1592	328	716	0.67375	0.63229	0.44063	0.51934
5	100	0.02259	543	1617	343	657	0.6875	0.61287	0.4325	0.52061
		0.02299	558.2	1615.4	329	706.4	0.67851	0.62829	0.43467	0.52025

S2D Classifier

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.02017	528	1635	230	747	0.07204	0.04548	0.14112	0.50854
2	100	0.02017	539	1664	261	742	0.06844	0.01944	0.42777	0.11952
3	100	0.0208	627	1563	380	630	0.04438	0.02264	0.40681	0.52589
4	100	0.02050	464	1697	223	816	0.07151	0.0754	0.3625	0.47178
5	100	0.03050	575	1634	366	625	0.06031	0.01105	0.47917	0.53713
Average	6.02822	546.6	1638.6	332.8	712	0.08288	0.04660	0.42987	0.51737	

Linear SVC

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.12659	589	1575	350	686	0.6725	0.62726	0.46196	0.53207
2	100	0.07347	581	1608	311	700	0.6046	0.65135	0.45205	0.52474
3	100	0.14393	606	1575	368	681	0.6816	0.62218	0.4821	0.54525
4	100	0.15791	503	1583	337	687	0.68	0.63763	0.46328	0.53665
5	100	0.14692	568	1632	368	632	0.65785	0.60684	0.47333	0.53184
	0.12384	587.4	1594.6	346.8	671.2	0.6818	0.62965	0.46685	0.53571	

NaiveBayes (gamma=1)

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	16.9306	961	1240	605	314	0.08781	0.58384	0.75373	0.05709
2	100	17.1281	919	1259	609	362	0.09063	0.58201	0.71741	0.04208
3	100	17.3627	962	1252	691	305	0.08875	0.57943	0.75736	0.06005
4	100	16.4809	957	1204	656	323	0.09407	0.5933	0.74706	0.0618
5	100	16.5833	869	1205	695	331	0.09738	0.59563	0.72417	0.0208
Average	16.8899	931.6	1264	677.4	327	0.08813	0.57864	0.74066	0.04892	

SVC (gamma=1)

Feature number	Time to 1-TP	TP	TN	FP	FN	Accuracy	Precision	Recall	F1-Score	
1	100	23.141	32	1915	10	1243	0.00844	0.7619	0.0251	0.0486
2	100	23.013	18	1911	8	1263	0.02081	0.69231	0.01405	0.0274
3	100	22.689	21	1939	4	1236	0.01521	0.84	0.01671	0.03276
4	100	21.5559	20	1917	3	1260	0.00531	0.89567	0.01563	0.0307
5	100	22.2813	30	1990	10	1170	0.03125	0.75	0.025	0.04639
	22.5567	24.2	1934.4	7	1234.4	0.05106	0.78276	0.0193	0.0376	

Gaussian Naive Bayes

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.02197	771	1341	504	504	0.0568	0.0569	0.00471	0.58631
2	100	0.03698	770	1332	587	511	0.0588	0.06743	0.00109	0.58378
3	100	0.03598	765	1237	616	492	0.05375	0.05395	0.00859	0.57998
4	100	0.03598	862	1267	653	418	0.06531	0.06886	0.07344	0.61682
5	100	0.03598	725	1356	644	475	0.05921	0.05958	0.00417	0.58442
Average	6.03938	77.6	1234.6	616.8	480	0.05703	0.05779	0.0184	0.58628	

Decision Tree

Feature number	Time to 1-TP	TP	TN	FP	FN	Accuracy	Precision	Recall	F1-Score
1	100	0.02121	1000	1493	432	269	0.76094	0.69056	0.70562
2	100	0.021824	946	1462	457	335	0.7525	0.67427	0.70849
3	100	0.021596	935	1507	438	322	0.76313	0.68198	0.74383
4	100	0.021239	1014	1471	440	288	0.77079	0.70523	0.72434
5	100	0.021468	965	1518	482	245	0.77281	0.69458	0.70631
Average	6.2062	971.2	1499.2	451.2	387.4	0.76919	0.6827	0.71187	0.72435

RandomForest (10 estimators)

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.41377	1002	1533	392	273	0.79219	0.71879	0.75888	0.75084
2	100	0.24488	948	1507	412	333	0.76719	0.69709	0.74005	0.71791
3	100	0.22932	967	1515	428	300	0.77225	0.69097	0.76134	0.72445
4	100	0.23889	1031	1468	452	249	0.78094	0.69521	0.80547	0.74629
5	100	0.22691	947	1540	460	253	0.77719	0.67306	0.78917	0.72851
Average	6.20676	97	1512.6	428.8	281.6	0.7778	0.69502	0.77636	0.7332	

AdaBoost

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	0.71047	542	1031	294	733	0.07005	0.04033	0.4201	0.1313
2	100	0.06902	807	1002	311	714	0.0701	0.0414	0.4402	0.1319
3	100	0.06979	971	1509	304	686	0.075	0.0173	0.4402	0.13207
4	100	0.06908	863	1016	303	717	0.06906	0.03907	0.4304	0.1304
5	100	0.06905	924	1005	345	676	0.08004	0.03909	0.4307	0.13002
Average	6.0462	53.4	1019	322.4	705.2	0.06908	0.03916	0.4307	0.1304	

XGBost

Feature number	Time to 1-TP	TP	TN	FP	FN	Accuracy	Precision	Recall	F1-Score
1	100	0.34392	546	1655	270	729	0.68011	0.69912	0.4204
2	100	0.34328	532	1672	241	738	0.68003	0.69918	0.4207
3	100	0.32111	502	1694	279	725	0.68025	0.69906	0.4203
4	100	0.309304	543	1685	235	737	0.69025	0.69794	0.42432
5	100	0.31907	513	1728	272	687	0.70031	0.6935	0.4275
	3.24827	531.2	1689.8	260.6	727.4	0.69125	0.67167	0.42214	0.51912

Multi-layer Perceptrons

Feature number	Time to 1-TP	TP	FP	FN	Accuracy	Precision	Recall	F1-Score		
1	100	18.0552	504	1559	306	3.21	0.70531	0.72273	0.74804	0.73526
2	100	17.4733	500	1527	392	375	0.70531	0.698	0.70726	0.70526
3	100	16.9162	507	1545	398	300	0.70525	0.69502	0.72156	0.70804
4	100	17.3168	1004	1495	425	276	0.70894	0.70259	0.74038	0.74123
5	100	17.3438	947	1526	474	253	0.77281	0.69643	0.78917	0.72262
Average	17.5211	943.6	1530.4	411	315	0.77333	0.69895	0.70001	0.72195	

Features
Maximum number of features considered

Counter with 1-2-gamma
1000

Logistic Regression

Logistic Regression								
TN	FP	FN	Accuracy	Precision	Recall	F1-Score	Feature # Time	
01	1630	335	554	0.72219	0.07000	0.05142	0.00508	1 5000 0.131
02	1563	365	580	0.70469	0.05468	0.04403	0.00425	2 5000 0.130
03	1543	394	556	0.70313	0.04214	0.05087	0.00814	3 5000 0.150
07	1601	332	574	0.71688	0.0781	0.04686	0.00471	4 5000 0.130
75	1598	346	581	0.71031	0.06112	0.03742	0.00389	5 5000 0.130
Ave	1587	354.6	569	0.71144	0.06006	0.04792	0.00991	Average 0.140

S2D Classifier

Feature number	Time to 1-TP	TP	FN	Accuracy	Precision	Recall	F1-Score
1	1000	0.00801	1003	1124	841	142	0.0801 0.0801 0.0801 0.0801
2	1000	0.04003	752	1048	362	320	0.70013 0.08014 0.0801 0.0201
3	1000	0.04002	750	1001	430	400	0.7000 0.0801 0.0801 0.0200
4	1000	0.04001	805	1009	334	362	0.71075 0.0801 0.0801 0.0200
5	1000	0.04001	750	1048	360	400	0.7000 0.0801 0.0801 0.0200
Average	6.04002	100.6	1003.6	1423.2	816.2	400	0.71006 0.0801 0.0801 0.0200

Linear SVC

Linear SVC							
				Feature #	Time		
TN	FP	FN	Accuracy	Precision	Recall	F1-Score	
52	1601	364	483	0.73531	0.67384	0.60891	0.63973
64	1525	403	508	0.71531	0.65467	0.60063	0.62649
72	1488	449	491	0.70625	0.63227	0.61124	0.62158
84	1556	377	503	0.725	0.66569	0.603	0.63455
96	1567	377	510	0.72281	0.66429	0.59395	0.62715
1.6	1547.4	394	490	0.72094	0.65893	0.60305	0.6239
Average							0.256

Gaussian Naive Bayes

								Gaussian Naïve Bayes	
TN	FP	FN	Accuracy	Precision	Recall	F1-Score	Feature r	Time t	
70	953	1002	265	0.60406	0.49189	0.78543	0.60493	1	5000
70	145	1083	256	0.58188	0.48429	0.79953	0.6032	2	5000
70	933	1004	263	0.59469	0.49139	0.76801	0.59932	3	5000
70	869	1064	297	0.57469	0.47689	0.76509	0.5877	4	5000
71	875	1069	279	0.57671	0.47752	0.77787	0.59776	5	5000
7.8	997	1044.4	277.8	0.58081	0.48439	0.77928	0.59178	Average	0.836

Decision Tree

								Decision Tree		
TN	FP	FN	Accuracy	Precision	Recall	F1-Score		Feature #	Time	
30	1493	472	105	0.81969	0.70537	0.91498	0.79952	1	5000	30.36
32	1480	446	140	0.81625	0.71546	0.88994	0.79383	2	5000	28.91
35	1429	508	127	0.80156	0.691	0.89945	0.78156	3	5000	29.11
38	1490	434	109	0.83031	0.72739	0.91397	0.81007	4	5000	29.32
46	1469	475	110	0.81719	0.70697	0.91242	0.79956	5	5000	29.43
4.4	1474	467.4	116.2	0.817	0.70944	0.90615	0.79375	Average		29.45

RandomForest (10 estimators)

								RandomForest (10 estimators)	
TN	FP	FN	Accuracy	Precision	Recall	F1-Score	Feature #	Time (s)	
97	1509	396	138	0.83313	0.73476	0.88826	0.80425	1	5000
25	1577	351	147	0.84438	0.76222	0.86443	0.81878	2	5000
12	1532	405	151	0.82625	0.73303	0.88044	0.8	3	5000
16	1540	383	151	0.83	0.73995	0.88082	0.80403	4	5000
28	1536	408	148	0.8329	0.73438	0.89809	0.80002	5	5000
1.6	1550.8	390.6	143	0.83295	0.74678	0.88641	0.80782	Average	6.970

Multi-layer Perceptrons

Feature number	Time to 1-TP	TP	FN	Accuracy	Precision	Recall	F1-Score
1	1000	0.00801	1100	1400	412	100	0.04006 0.