${\bf List~of~datasets}$ Distance Profile Layer for Binary Classification and Density Estimation

	Dataset name	#samples	#features	minority class ratio
1	$glass-0-4_vs_5$	92	9	0.098
2	breastcan	683	9	0.35
3	wisconsin	699	9	0.343
4	$yeast-1-2-8-9_vs_7$	947	8	0.032
5	ionosphere	351	34	0.359
6	soybean	47	20	0.213
7	$yeast-1_vs_7$	459	7	0.065
8	$ecoli-0-1-4-7_vs_5-6$	332	6	0.075
9	breastcancoimbra	116	9	0.448
10	$ecoli-0-6-7_vs_5$	220	6	0.091
11	$yeast-1-4-5-8_vs_7$	693	8	0.043
12	$ecoli-0-1_vs_2-3-5$	244	7	0.098
13	$glass-0-1-4-6_vs_2$	205	9	0.083
14	sonar	208	60	0.466
15	$ecoli-0-3-4-6_vs_5$	205	7	0.098
16	balance	625	4	0.078
17	$glass-0-1-6_vs_5$	184	9	0.049
18	$yeast-0-3-5-9_vs_7-8$	506	8	0.099
19	ecoli4	336	7	0.06
20	$ecoli-0-1-4-7_vs_2-3-5-6$	336	7	0.086
21	monkone	556	6	0.5
22	heart	270	13	0.444
23	$ecoli-0-3-4-7_vs_5-6$	257	7	0.097
24	$ecoli-0-1-3-7_vs_2-6$	281	7	0.025
25	australian	690	14	0.445
26	$glass-0-1-6_vs_2$	192	9	0.089
27	shuttle-c2-vs-c4	129	9	0.047
28	banknote	1372	4	0.445
29	$yeast-2_vs_8$	482	8	0.041
30	$ecoli-0-4-6_vs_5$	203	6	0.099

	Dataset name	#samples	$\# { m features}$	minority class ratio
31	yeast-2_vs_4	514	8	0.099
32	liver	345	6	0.42
33	page-blocks-1-3_vs_4	472	10	0.059
34	$yeast-0-5-6-7-9_vs_4$	528	8	0.097
35	popfailures	540	20	0.085
36	hayes	160	4	0.194
37	german	1000	24	0.3
38	iris	150	4	0.333
39	glass2	214	9	0.079
40	ecoli-0-6-7_vs_3-5	222	7	0.099
41	wine	178	13	0.27
42	$ecoli-0-1-4-6_vs_5$	280	6	0.071
43	$ecoli-0-2-3-4_vs_5$	202	7	0.099
44	$glass-0-6_vs_5$	108	9	0.083
45	$ecoli-0-2-6-7_vs_3-5$	224	7	0.098
46	$ecoli-0-3-4_vs_5$	200	7	0.1
47	glass4	214	9	0.061
48	glass5	214	9	0.042
49	diabetes	768	8	0.349
50	$glass-0-1-5_vs_2$	172	9	0.099
51	$yeast-0-2-5-6_vs_3-7-8-9$	1004	8	0.099
52	yeast3	1484	8	0.11
53	cryotherapy	90	6	0.467
54	$ecoli-0-1_vs_5$	240	6	0.083
55	shuttle-c0-vs-c4	1829	9	0.067
56	yeast6	1484	8	0.024
57	yeast4	1484	8	0.034
58	breasttissue	106	9	0.132
59	yeast-0-2-5-7-9_vs_3-6-8	1004	8	0.099
60	vowel0	988	13	0.091
61	yeast5	1484	8	0.03
62	monkthree	554	6	0.48