Logistic Regression Classification

			precision				recall				f1-score				support		Accuracy
Sino	solver	penalty	0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg			
1	lbfgs	l2	0.88	0.9	0.89	0.89	0.85	0.93	0.89	0.89	0.87	0.91	0.89	0.89	53	83	0.89
2	newton-cg	l2	1	1	1	1	1	1	1	1	1	1	1	1	51	82	1
3	liblinear	l1	0.96	0.99	0.97	0.98	0.98	0.98	0.98	0.98	0.97	0.98	0.98	0.98	50	83	0.98
4	liblinear	l2	0.96	0.99	0.97	0.98	0.98	0.98	0.98	0.98	0.97	0.98	0.98	0.98	50	83	0.98
5	saga	l1	0	1	0.5	1	0	0.62	0.31	0.62	0	0.76	0.38	0.76	51	82	0.62
6	saga	l2	0	1	0.5	1	0	0.62	0.31	0.62	0	0.76	0.38	0.76	51	82	0.62
7	sag	l2	0	1	0.5	1	0	0.62	0.31	0.62	0	0.76	0.38	0.76	51	82	0.62

The f1_macro valve for best parameter {'penality':'l2,'solver':'newton-cg'}:1

KNN Traditional classification

			precision				recall				f1-score				support		Accuracy
sino	n_neighbors	p=2	0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg			
1	2		0.89	0.6	0.78	0.82	0.6	0.96	0.78	0.74	0.74	0.74	0.74	0.74	65	68	0.74
2	3		0.84	0.73	0.79	0.79	0.66	0.88	0.77	0.77	0.74	0.8	0.77	0.77	65	68	0.77
3	5		0.86	0.66	0.76	0.77	0.61	0.89	0.75	0.75	0.72	0.76	0.74	0.73	72	61	0.74
4	7		0.78	0.63	0.71	0.71	0.57	0.83	0.7	0.69	0.66	0.72	0.69	0.69	70	63	0.74

The f1_macro valve for best parameter {'n_neighbors','P=2'}:0.77

Naive bayes traditional classification

		precision				recall				f1-score				support		Accuracy
sino		0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg	0	1	Macro ave	Weighted avg			
1	GaussianNB	1	0.96	0.98	0.98	0.94	1	0.97	0.98	0.97	0.98	0.98	0.98	54	79	0.98
2	MultinomialNB	0.68	0.98	0.83	0.87	0.98		0.72	0.85	0.82	0.81	0.82	0.82	51	82	0.82
3	BernoulliNB	0.86	1	0.93	0.95	1	0.9	0.95	0.94	0.93	0.95	0.94	0.94	51	82	0.94
4	ComplementNB	0.68	0.98	0.83	0.87	0.98	0.72	0.85	0.82	0.81	0.83	0.82	0.82	51	82	0.82
5	CategoricalNB	impot Error														

The f1_macro valve for best parameter {GaussianNB}:0.98