

Table 1: Performance Comparison on Four Binary Classification Benchmarks (50×2 Training Samples, 200×2 Testing Samples), where “ACC.” refers to accuracy and “F1.” refers to F1-Score. Note: numbers in **Red** refer to the largest values, **Blue** refers to the second-largest values, and **Orange** refers to the third-largest values.

Algorithm	Parameter	Data Source							
		Adult1		Adult2		Adult3		Web1	
		ACC.	F1.	ACC.	F1.	ACC.	F1.	ACC.	F1.
Random Forest	100.0	0.701	0.712	0.683	0.620	0.715	0.682	0.632	0.584
	200.0	0.763	0.744	0.773	0.753	0.770	0.754	0.680	0.601
D-Tree	10.0	0.713	0.705	0.717	0.712	0.721	0.707	0.669	0.611
	20.0	0.686	0.680	0.696	0.690	0.698	0.689	0.707	0.692
LDA		0.717	0.710	0.730	0.719	0.727	0.722	0.774	0.781
<i>FWDA</i> (m, λ)	50, 1.0	0.764	0.750	0.766	0.751	0.766	0.753	0.807	0.798
	50, 10.0	0.763	0.749	0.763	0.747	0.765	0.751	0.775	0.755
	50, 100.0	0.764	0.749	0.763	0.748	0.765	0.751	0.767	0.746
	100, 1.0	0.762	0.748	0.766	0.752	0.766	0.753	0.802	0.791
	100, 10.0	0.764	0.750	0.764	0.749	0.765	0.751	0.781	0.764
	100, 100.0	0.764	0.749	0.764	0.749	0.766	0.751	0.778	0.759
	150, 1.0	0.765	0.750	0.765	0.750	0.767	0.752	0.791	0.777
	150, 10.0	0.765	0.750	0.763	0.748	0.766	0.752	0.782	0.764
	150, 100.0	0.763	0.749	0.763	0.747	0.765	0.751	0.769	0.747
	200, 1.0	0.764	0.750	0.764	0.749	0.766	0.752	0.785	0.769
	200, 10.0	0.764	0.750	0.764	0.749	0.766	0.752	0.784	0.767
	200, 100.0	0.764	0.749	0.763	0.748	0.765	0.751	0.772	0.752
Log. Reg.	1.0	0.500	0.400	0.500	0.333	0.500	0.400	0.500	0.133
	10.0	0.500	0.400	0.500	0.333	0.500	0.400	0.500	0.133
	100.0	0.500	0.400	0.500	0.333	0.500	0.400	0.500	0.133
SVM-Linear		0.748	0.739	0.759	0.748	0.751	0.744	0.728	0.689
SVM-G	0.1	0.569	0.484	0.578	0.490	0.541	0.471	0.561	0.517
	1.0	0.657	0.716	0.670	0.643	0.662	0.652	0.610	0.551
	10.0	0.650	0.631	0.609	0.577	0.635	0.552	0.571	0.469
AdaBoost	100.0	0.716	0.674	0.731	0.681	0.743	0.696	0.554	0.393
	200.0	0.728	0.678	0.733	0.681	0.737	0.686	0.565	0.449