

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.

Parameter	Data Source					
	Adult1		Adult2		Adult3	
	ACC.	F1.	ACC.	F1.	ACC.	F1.
(Depth)	Decision Tree					
10.0	0.713 \pm 0.071	0.705 \pm 0.074	0.717 \pm 0.104	0.712 \pm 0.116	0.721 \pm 0.050	0.707 \pm 0.066
20.0	0.686 \pm 0.058	0.680 \pm 0.080	0.696 \pm 0.039	0.690 \pm 0.054	0.698 \pm 0.035	0.689 \pm 0.044
	LDA					
	0.717 \pm 0.056	0.710 \pm 0.066	0.730 \pm 0.062	0.719 \pm 0.070	0.727 \pm 0.052	0.722 \pm 0.059
	Two-Stage LDA					
	0.757 \pm 0.038	0.745 \pm 0.034	0.761 \pm 0.029	0.748 \pm 0.037	0.772 \pm 0.055	0.765 \pm 0.058
(m, λ)	AWDA					
50, 1.0	0.764 \pm 0.043	0.750 \pm 0.048	0.766 \pm 0.039	0.751 \pm 0.035	0.766 \pm 0.027	0.753 \pm 0.030
50, 10.0	0.763 \pm 0.044	0.749 \pm 0.048	0.763 \pm 0.039	0.747 \pm 0.036	0.765 \pm 0.028	0.751 \pm 0.032
50, 100.0	0.764 \pm 0.044	0.749 \pm 0.046	0.763 \pm 0.044	0.748 \pm 0.041	0.765 \pm 0.027	0.751 \pm 0.032
100, 1.0	0.762 \pm 0.041	0.748 \pm 0.045	0.766 \pm 0.038	0.752 \pm 0.034	0.766 \pm 0.032	0.753 \pm 0.035
100, 10.0	0.764 \pm 0.044	0.750 \pm 0.047	0.764 \pm 0.042	0.749 \pm 0.039	0.765 \pm 0.027	0.751 \pm 0.032
100, 100.0	0.764 \pm 0.045	0.749 \pm 0.047	0.764 \pm 0.042	0.749 \pm 0.039	0.766 \pm 0.027	0.751 \pm 0.032
150, 1.0	0.765 \pm 0.043	0.750 \pm 0.047	0.765 \pm 0.038	0.750 \pm 0.033	0.767 \pm 0.026	0.752 \pm 0.031
150, 10.0	0.765 \pm 0.044	0.750 \pm 0.048	0.763 \pm 0.040	0.748 \pm 0.037	0.766 \pm 0.027	0.752 \pm 0.032
150, 100.0	0.763 \pm 0.045	0.749 \pm 0.048	0.763 \pm 0.043	0.747 \pm 0.038	0.765 \pm 0.028	0.751 \pm 0.033
200, 1.0	0.764 \pm 0.042	0.750 \pm 0.046	0.764 \pm 0.039	0.749 \pm 0.034	0.766 \pm 0.031	0.752 \pm 0.034
200, 10.0	0.764 \pm 0.044	0.750 \pm 0.045	0.764 \pm 0.040	0.749 \pm 0.038	0.766 \pm 0.028	0.752 \pm 0.032
200, 100.0	0.764 \pm 0.044	0.749 \pm 0.048	0.763 \pm 0.042	0.748 \pm 0.038	0.765 \pm 0.027	0.751 \pm 0.032
	SVM-Linear					
	0.748 \pm 0.051	0.739 \pm 0.066	0.759 \pm 0.044	0.748 \pm 0.047	0.751 \pm 0.024	0.744 \pm 0.037
(Band Width)	SVM-Kernal (Gaussian)					
0.1	0.569 \pm 0.211	0.484 \pm 0.363	0.578 \pm 0.227	0.490 \pm 0.319	0.541 \pm 0.004	0.471 \pm 0.233
1.0	0.657 \pm 0.084	0.716 \pm 0.078	0.670 \pm 0.121	0.643 \pm 0.154	0.662 \pm 0.110	0.652 \pm 0.100
(Instance Number)	AdaBoost					
100.0	0.716 \pm 0.069	0.674 \pm 0.093	0.731 \pm 0.064	0.681 \pm 0.095	0.743 \pm 0.050	0.696 \pm 0.075
200.0	0.728 \pm 0.057	0.678 \pm 0.089	0.733 \pm 0.069	0.681 \pm 0.100	0.737 \pm 0.056	0.686 \pm 0.085