CMPE 142 HW3

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March 7, 2017

1   Question 1: Large Margin Classification

Table 1: Final Experiment Accuracy Values

	Primal	Linear Dual	Poly Dual	Gauss Dual
Train Accuracies	0.75	1	1	1
Test Accuracies	0.76	0.98	0.985	0.975

Table 2: Final Experiment Errors

	Primal	Linear Dual	Poly Dual	Gauss Dual
Train Errors	0.25	0	0	0
Test Errors	0.24	0.02	0.015	0.025

2   Question 2: Data Mining using Weka

Using Weka

Table 3: Accuracy of Various Classifier Models Using Weka

Type of Train Classifier	Accuracy of Classifier Model	Comments
SMO	98%	Used Poly Kernel Cross Validation of 10
SMO	98%	Used Normalized Poly Kernel Cross Validation of 10
Logistic	100%	Used Normalized Poly Kernel Cross Validation of 10
Voted Perceptron	99%	Cross Validation of 10
Simple Logistic	100%	Cross Validation of 10
SGDTeXt	50%	Cross Validation of 10
Multilayer Perceptron	100%	Cross-Validation of 100
Multilayer Perceptron	98%	Cross-Validation of 2
SGD	97%	Cross-Validation 10 Linear Kernel