Homework 8 for LING 572

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1 Q1/Q2

Table 1: Results on the binary task

Expt_id	Kernel	gamma	coef0	degree	total_sv	Training Acc	Test Acc	Test Acc from Q2
1	linear	-	-	-	535	99.7222%	95%	95%
2	polynomial	1	0	2	792	99.7222%	92%	92%
3	polynomial	0.1	0.5	2	775	99.7222%	96.5%	96.5%
4	RBF	0.5	-	-	1798	99.7222%	50%	50%
5	sigmoid	0.5	-0.2	-	1214	53.6667%	40.5%	40.5%

We get exactly the same accuracies as libSVM does, and the running time of our implementation is actually much faster (less than one minute) than others noted on GoPost, with other kernels few seconds.