COMP0078 Assignment 2

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1 PART I

1.1 Kernel Perceptron

2 PART II

2.1 Semi-supervised Leanrning via Laplacian Interpolation

Experimental report for the laplacian interpolation approach:

		# of known labels (per class)				
		1	2	4	8	16
accuracy	50	0.82±0.1449	0.86±0.1112	0.93±0.0544	0.95±0.0109	0.95±0.0202
	100	0.84±0.2055	0.94±0.0135	0.93±0.0417	0.95±0.0197	0.95±0.0175
	200	0.82±0.1564	0.97±0.0325	0.97±0.0278	0.97±0.0156	0.98±0.0082
	400	0.89±0.1835	0.98±0.0051	0.98±0.0065	0.99±0.0043	0.99±0.0047

And for the laplacian kernel method:

		# of known labels (per class)				
		1	2	4	8	16
accuracy	50	0.93±0.0815	0.94±0.031	0.95±0.0152	0.95±0.0196	0.96±0.0183
	100	0.89±0.1864	0.93±0.0287	0.94±0.0207	0.93±0.0141	0.97±0.0172
	200	0.98±0.0088	0.98±0.0075	0.98±0.0085	0.98±0.0104	0.98±0.0074
	400	0.95±0.1516	0.99±0.0047	0.98±0.0054	0.98±0.0069	0.99±0.0046

3 PART III

3.1   Questions

1.

2.

3.