

HW5

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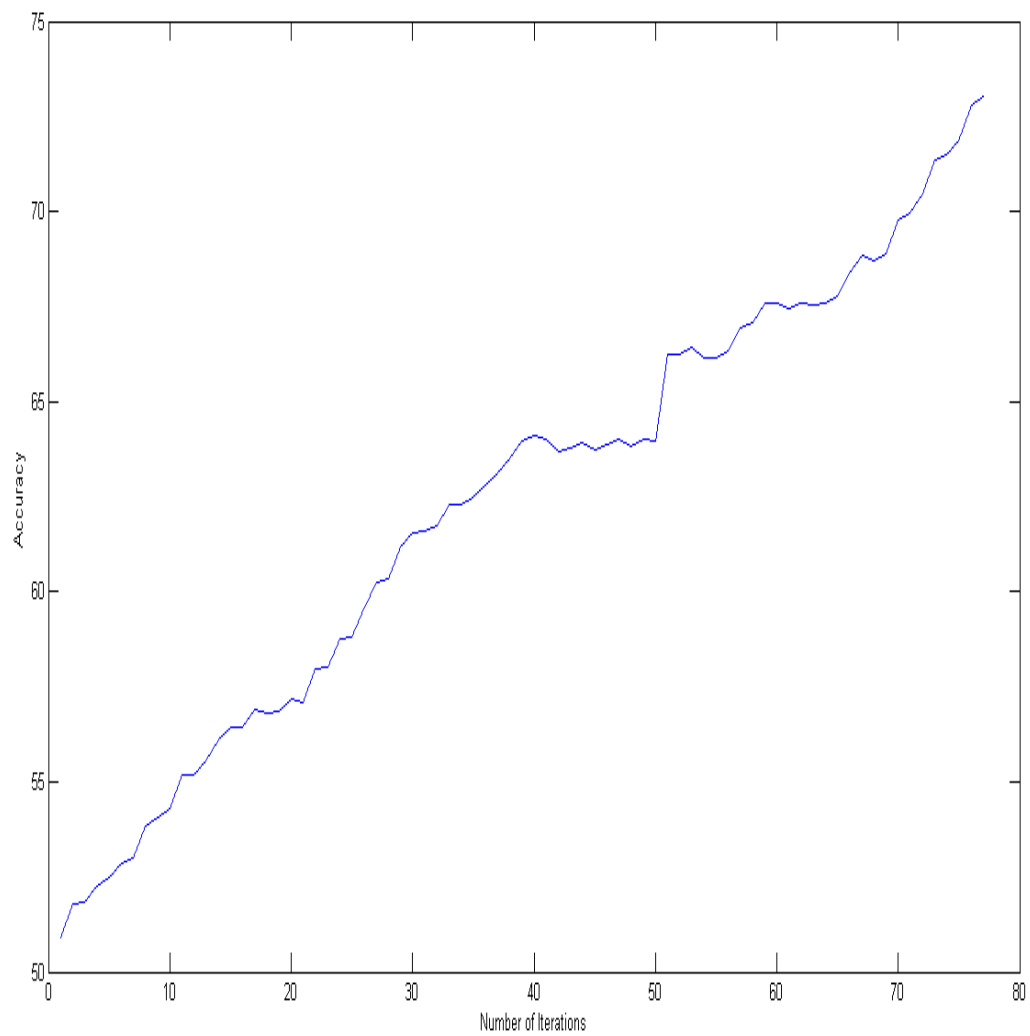
1.

Table for confusion matrices, precision and recall values for all folds.

Fold	Confusion matrix			Precision (+1)	Precision (-1)	Recall (+1)	Recall (-1)	Training accuracy after each fold	Test accuracy after each fold									
	tp	fn	p															
	fp	tn	n															
	p'	n'	N															
1	<table><tr><td>9</td><td>2</td><td>11</td></tr><tr><td>6</td><td>3</td><td>9</td></tr><tr><td>15</td><td>5</td><td>20</td></tr></table>			9	2	11	6	3	9	15	5	20	0.6	0.6	0.8182	0.3333	58.8889	60
9	2	11																
6	3	9																
15	5	20																
2	<table><tr><td>9</td><td>1</td><td>10</td></tr><tr><td>6</td><td>4</td><td>10</td></tr><tr><td>15</td><td>5</td><td>20</td></tr></table>			9	1	10	6	4	10	15	5	20	0.6	0.8	0.9	0.4	60.5556	65
9	1	10																
6	4	10																
15	5	20																
3	<table><tr><td>7</td><td>3</td><td>10</td></tr><tr><td>5</td><td>5</td><td>10</td></tr><tr><td>12</td><td>8</td><td>20</td></tr></table>			7	3	10	5	5	10	12	8	20	0.5833	0.6250	0.7	0.5	74.4444	60
7	3	10																
5	5	10																
12	8	20																

4				0.6	0.5	0.5455	0.5556	49.4444	55
	6	5	11						
	4	5	9						
	10	10	20						
5				0.6154	0.5714	0.7273	0.4444	63.3333	60
	8	3	11						
	5	4	9						
	13	7	20						
6				0.5	0.3333	0.6364	0.2222	44.4444	45
	7	4	11						
	7	2	9						
	14	6	20						
7				0.5714	0.5	0.7273	0.3333	56.1111	55
	8	3	11						
	6	3	9						
	14	6	20						
8				0.7143	0.8333	0.9091	0.5556	87.7778	75
	10	1	11						
	4	5	9						
	14	6	20						
9				0.7143	0.8333	0.9091	0.5556	63.8889	75
	10	1	11						
	4	5	9						

	<table><tr><td>14</td><td>6</td><td>20</td></tr></table>	14	6	20												
14	6	20														
10	<table><tr><td>6</td><td>5</td><td>11</td></tr><tr><td>7</td><td>2</td><td>9</td></tr><tr><td>13</td><td>7</td><td>20</td></tr></table>	6	5	11	7	2	9	13	7	20	0.4615	0.2857	0.5455	0.2222	55	40
6	5	11														
7	2	9														
13	7	20														
Mean	<table><tr><td>8</td><td>2.8</td><td>10.8</td></tr><tr><td>5.4</td><td>3.8</td><td>9.2</td></tr><tr><td>13.4</td><td>6.6</td><td>20</td></tr></table>	8	2.8	10.8	5.4	3.8	9.2	13.4	6.6	20	0.5960	0.5882	0.7418	0.4122	61.3889	59
8	2.8	10.8														
5.4	3.8	9.2														
13.4	6.6	20														



Q.2 Table for tradaboost algorithm.

accuracy after No. of Folds with n% data	1%	5%	10%	20%
1st Fold	0.6040	0.8370	0.8379	0.9323
2nd Fold	0.4532	0.7142	0.7904	0.5318
3rd Fold	0.5204	0.8871	0.5294	0.9158
4th Fold	0.4405	0.5127	0.8936	0.5546
5th Fold	0.6378	0.8979	0.6425	0.5399
6th Fold	0.4965	0.8117	0.9306	0.7599
7th Fold	0.4361	0.5638	0.5764	0.5679
8th Fold	0.4563	0.4835	0.8959	0.5076
9th Fold	0.4361	0.4613	0.6302	0.5733
10th Fold	0.4362	0.4557	0.5753	0.9186
mean	0.4918	0.6625	0.7303	0.6802
standard deviation	0.0703	0.1757	0.1467	0.1713