CO395 Machine Learning
CBC #4
t-test

Group 1
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Contents

Results of the t-test

Clean dataset

	DT vs. ANN	DT vs. CBR	ANN vs. CBR
Emotion 1	2.3857	4.3672	1.0573
Emotion 2	0.6936	2.8501	3.2322
Emotion 3	3.5037	2.7900	0.5018
Emotion 4	4.9059	6.2893	-0.1580
Emotion 5	0.2666	3.6875	3.1753
Emotion 6	3.5283	3.5196	0.2353

Table 1: t values for every emotion and algorithm

	DT vs. ANN	DT vs. CBR	ANN vs. CBR
Emotion 1	similar	different	similar
Emotion 2	similar	different	different
Emotion 3	different	similar	similar
Emotion 4	different	different	similar
Emotion 5	similar	different	different
Emotion 6	different	different	similar

Table 2: t values for every emotion and algorithm

Noisy dataset

-5.4336 -3.9836 0.7861 6.5276 6.3766 0.2338 2.8913 4.5010 0.2034 3.2990 4.8491 -1.0284 0.9481 2.9775 2.4377 3.8547 4.4856 1.6618

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Table 3: t values for every emotion and algorithm

	DT vs. ANN	DT vs. CBR	ANN vs. CBR
Emotion 1	similar	different	similar
Emotion 2	similar	different	different
Emotion 3	different	similar	similar
Emotion 4	different	different	similar
Emotion 5	similar	different	different
Emotion 6	different	different	similar

Table 4: t values for every emotion and algorithm

Questions

Performance of the algorithms

Adjustment of the significance level

Type of the t-test

Classification error vs. F_1 measure

Trade-off between number of folds and examples

Additional emotions