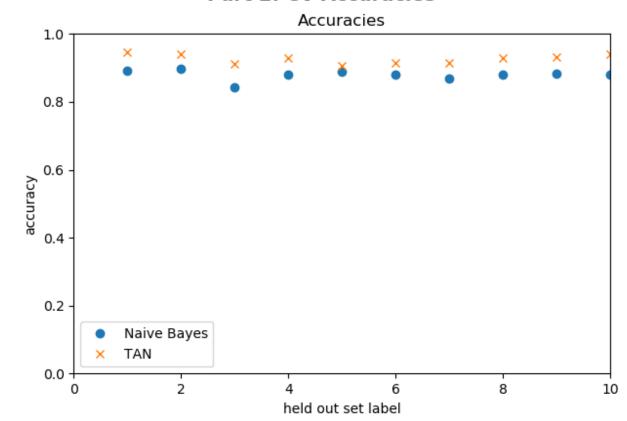# CS760 Homework 4: Part 2

Jeff Burge

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Part 2: CV Accuracies

From the above image, we can see that the TAN model produces more accurate models than the Naive Models on stratified 10-fold cross validation on the chess-KingRookVKingPawn.arff dataset.

Paired *t* test results

P value and statistical significance:
The two-tailed P value is less than 0.0001
By conventional criteria, this difference is considered to be extremely statistically significant.

Confidence interval:
The mean of Group One minus Group Two equals -0.046622257053291540
95% confidence interval of this difference: From -0.056949531209641434 to -0.036294982896941640

Intermediate values used in calculations:
t = 10.2125
df = 9
standard error of difference = 0.005

Learn more:
GraphPad's web site includes portions of the manual for GraphPad Prism that can help you learn statistics. First, review the meaning of P values and confidence intervals . Then learn how to interpret results from an unpaired or paired *t* test. These links include GraphPad's popular *analysis checklists* .

Review your data:

Group	Group One	Group Two
Mean	0.879842280564263400	0.926464537617554900
SD	0.014919459690119307	0.013737362260852037
SEM	0.004717947407984693	0.004344135378713258
N	10	10

From the above results gained by inputting the accuracies of the two models over cross-validated test sets on ten folds, we calculate a t-statistic of 10.2125, giving a p-value of less than 0.0001 which is extremely significant. From this test, we can with very high probability say that the two models produce statistically significantly different results, with the TAN model producing more accurate predictions.