Spambase data, converting features to binary/ternary/4-part features, no pruning:

TRAINING RESULTS:

spam\_right: 462.0

spam\_wrong: 110.0

ham\_right: 1832.0

ham\_wrong: 792.0

total accuracy: 0.717772215269

spam accuracy: 0.368421052632

ham accuracy: 0.943357363543

false positive: 0.0566426364573

false negative: 0.631578947368

HELD OUT RESULTS:

spam\_right: 117.0

spam\_wrong: 31.0

ham\_right: 387.0

ham\_wrong: 179.0

total accuracy: 0.705882352941

spam accuracy: 0.39527027027

ham accuracy:: 0.925837320574

false positive: 0.0741626794258

false negative: 0.60472972973

pretty shit, I think you’ll agree 😊

tweaked features- made word freq ternary:

TRAINING RESULTS:

spam\_right: 850.0

spam\_wrong: 519.0

ham\_right: 1423.0

ham\_wrong: 404.0

total accuracy: 0.711201501877

spam accuracy: 0.677830940989

ham accuracy: 0.732749742533

false positive: 0.267250257467

false negative: 0.322169059011

HELD OUT RESULTS:

spam\_right: 204.0

spam\_wrong: 120.0

ham\_right: 298.0

ham\_wrong: 92.0

total accuracy: 0.703081232493

spam accuracy: 0.689189189189

ham accuracy:: 0.712918660287

false positive: 0.287081339713

false negative: 0.310810810811

same overall accuracy, now equally good for spam/ham. (practically speaking this may be worse, because blocking ham is worse than allowing in spam)

after changing features a lot:

TRAINING RESULTS:

spam\_right: 650.0

spam\_wrong: 187.0

ham\_right: 1755.0

ham\_wrong: 604.0

total accuracy: 0.752503128911

spam accuracy: 0.518341307815

ham accuracy: 0.903707518023

false positive: 0.0962924819773

false negative: 0.481658692185

HELD OUT RESULTS:

spam\_right: 151.0

spam\_wrong: 56.0

ham\_right: 362.0

ham\_wrong: 145.0

total accuracy: 0.718487394958

spam accuracy: 0.510135135135

ham accuracy:: 0.866028708134

false positive: 0.133971291866

false negative: 0.489864864865