

Experiements Report

ATOM

July 20, 2016

Summary

Final Model Description

Ensemble Selection

Score: 0.833333333333

Bag: 1

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:771, reg_alpha:0.2, eta:0.6, reg_lambda:0.5	1

Bag: 2

Learner	Score	Parameters	weight
KNeighborsClassifier	0.7667	n_neighbors:6	1
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5	1

Bag: 3

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:771, reg_alpha:0.2, eta:0.6, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 4

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5	1

Bag: 5

Learner	Score	Parameters	weight
XGBLinearClassifier	0.8067	lambda_bias:1.0, num_round:806, reg_alpha:0.0, eta:0.35, reg_lambda:1.5	1
Linear_SVC	0.8133	C:3.3	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 6

Learner	Score	Parameters	weight
LogisticRegression	0.7933	C:0.6	1
KNeighborsClassifier	0.7667	n_neighbors:6	1
Linear_SVC	0.82	C:3.2	1

Bag: 7

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5	1

Bag: 8

Learner	Score	Parameters	weight
Linear_SVC	0.8133	C:5.7	1
KNeighborsClassifier	0.7667	n_neighbors:6	1
LogisticRegression	0.78	C:0.1	1

Bag: 9

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:771, reg_alpha:0.2, eta:0.6, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 10

Learner	Score	Parameters	weight
Linear_SVC	0.82	C:3.2	1
XGBLinearClassifier	0.8067	lambda_bias:0.5, num_round:591, reg_alpha:0.4, eta:1.0, reg_lambda:1.0	1

Bag: 11

Learner	Score	Parameters	weight
Linear_SVC	0.82	C:3.2	1
LogisticRegression	0.78	C:0.2	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 12

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 13

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5	1

Bag: 14

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 15

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 16

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 17

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 18

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:771, reg_alpha:0.2, eta:0.6, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Bag: 19

Learner	Score	Parameters	weight
Linear_SVC	0.8133	C:12.2	1
KNeighborsClassifier	0.7667	n_neighbors:6	1
LogisticRegression	0.78	C:0.1	1

Bag: 20

Learner	Score	Parameters	weight
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5	1
KNeighborsClassifier	0.7667	n_neighbors:6	1

Number of iterations

250

Number of features

2

Task type

Classification

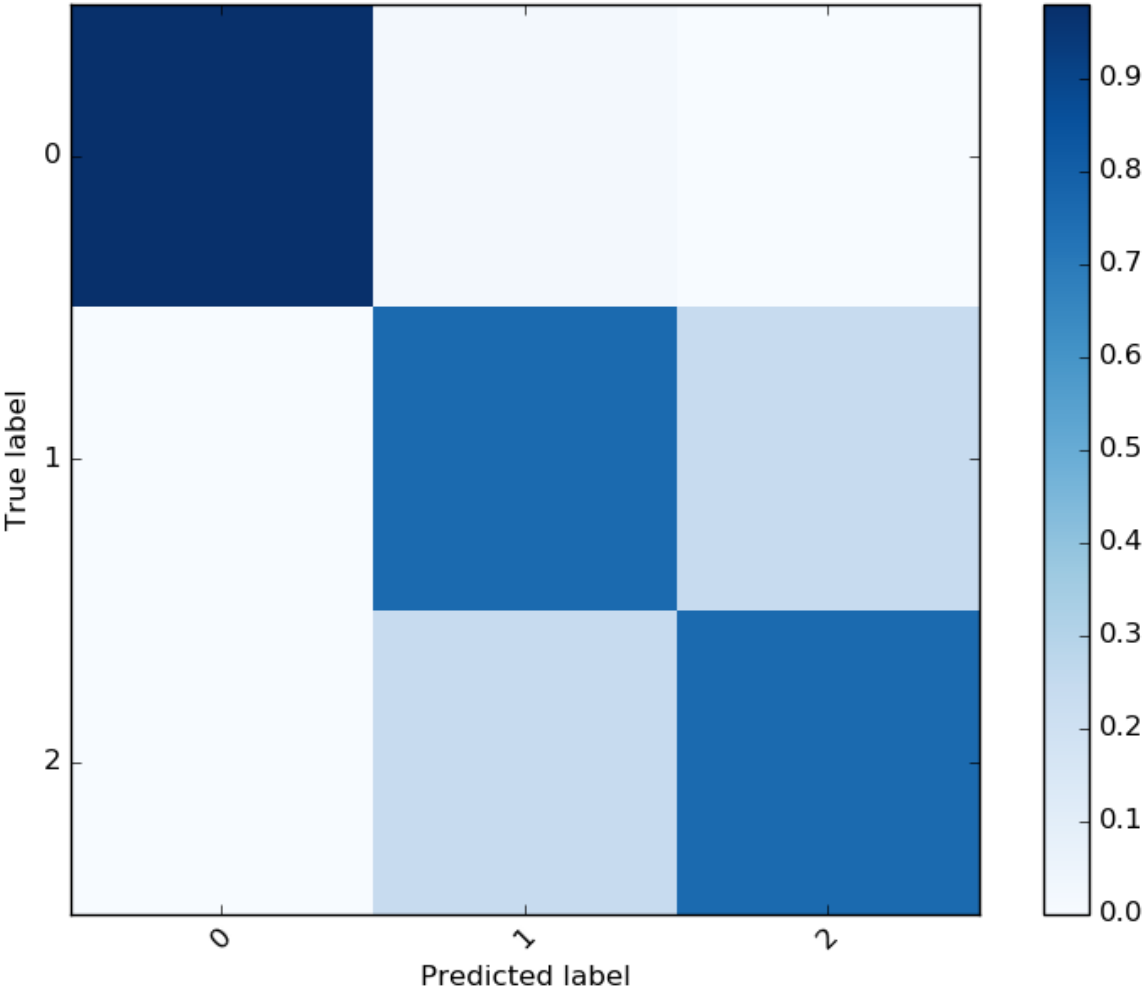
Top 4 Models

Single Models

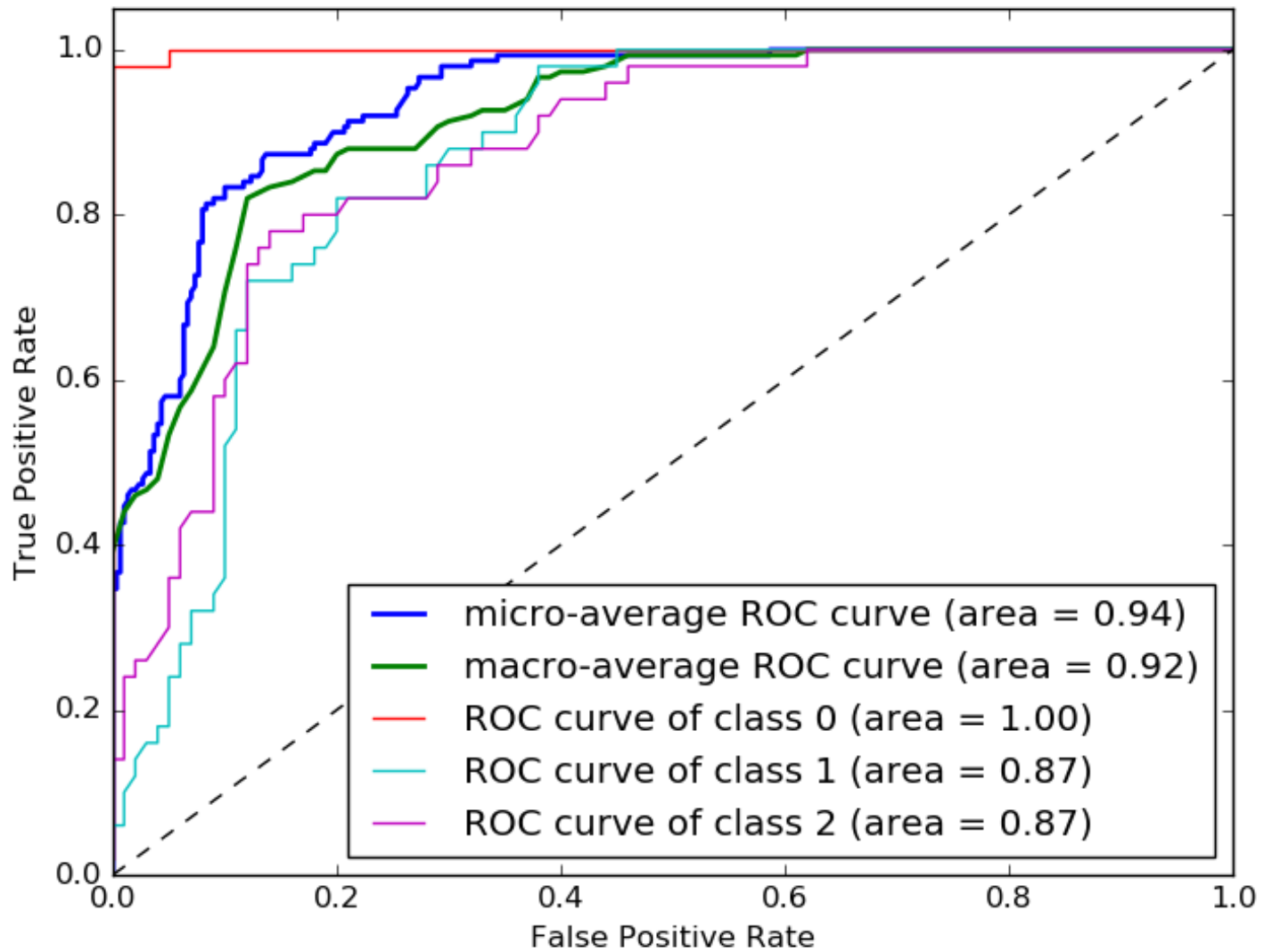
learner	Score	Parameters
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:771, reg_alpha:0.2, eta:0.6, reg_lambda:0.5
Linear_SVC	0.82	C:3.2
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:778, reg_alpha:0.35, eta:0.75, reg_lambda:0.5
XGBLinearClassifier	0.82	lambda_bias:0.0, num_round:744, reg_alpha:0.45, eta:0.95, reg_lambda:0.5

Graphs

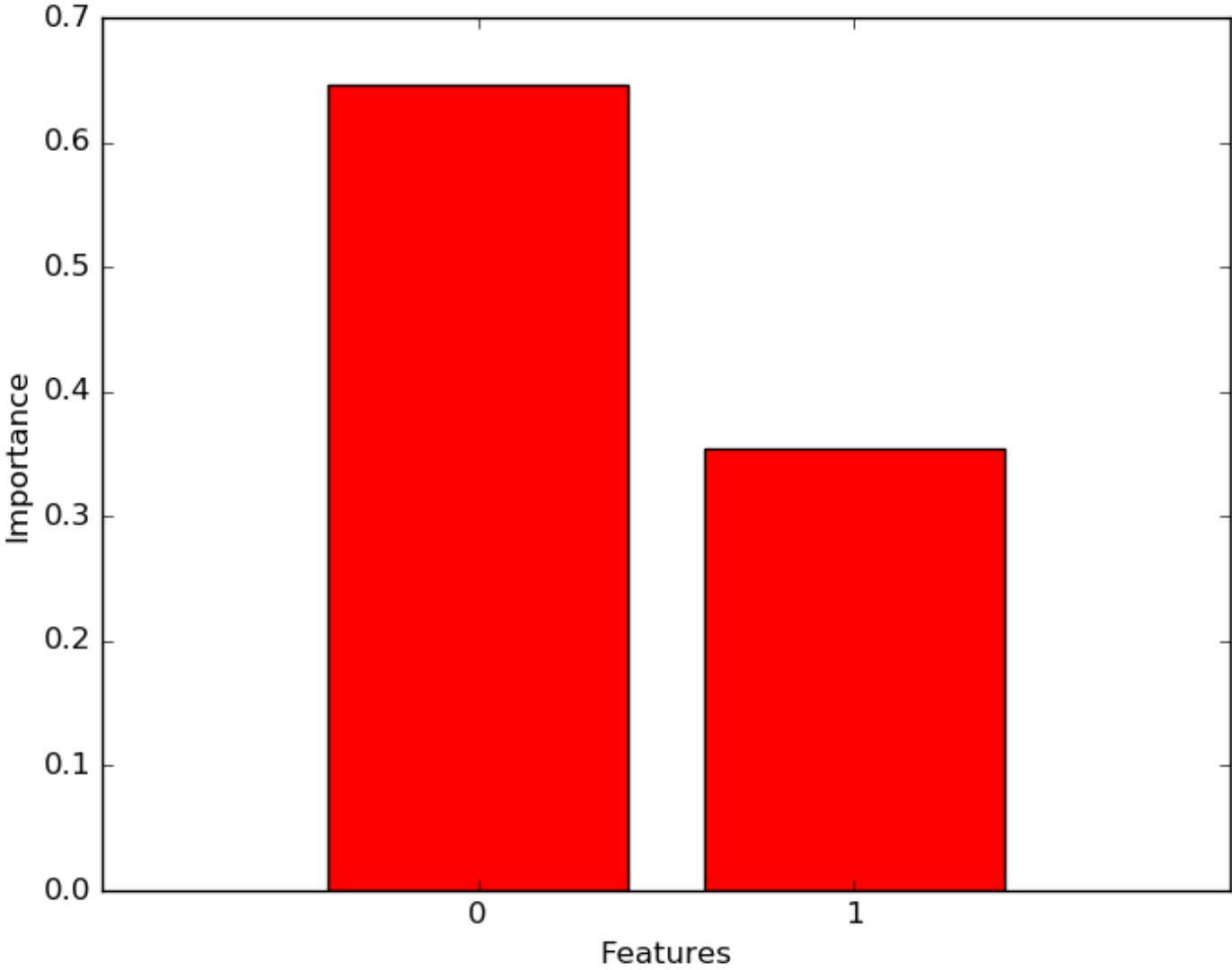
Confusion Matrix



ROC Curve



Feature Importance



XGBLinearClassifier

Linear_SVC

LogisticRegression

KNeighborsClassifier