

Evaluating Models



DARDEN SCHOOL *of* BUSINESS
McINTIRE SCHOOL *of* COMMERCE

REVISITING OUR CLASSIFICATION EXAMPLE

Observation	Actual Training Label/Class	Predicted Label/Class	Classification Type
1	Yes	Yes	TP
2	No	No	TN
3	Yes	Yes	TP
4	Yes	No	FN
5	Yes	Yes	TP
6	Yes	No	FN
7	No	No	TN
8	No	No	TN
9	No	No	TN
10	No	Yes	FP



PREDICTION SCORES

Observation	Actual Training Label/Class	Predicted Label/Class	Classification Type	Prediction Score
1	Yes	Yes	TP	0.9
2	No	No	TN	0.2
3	Yes	Yes	TP	0.8
4	Yes	No	FN	0.1
5	Yes	Yes	TP	0.7
6	Yes	No	FN	0.3
7	No	No	TN	0.4
8	No	No	TN	0.3
9	No	No	TN	0.4
10	No	Yes	FP	0.6



CONFIDENCE SCORES – RAIN EXAMPLE

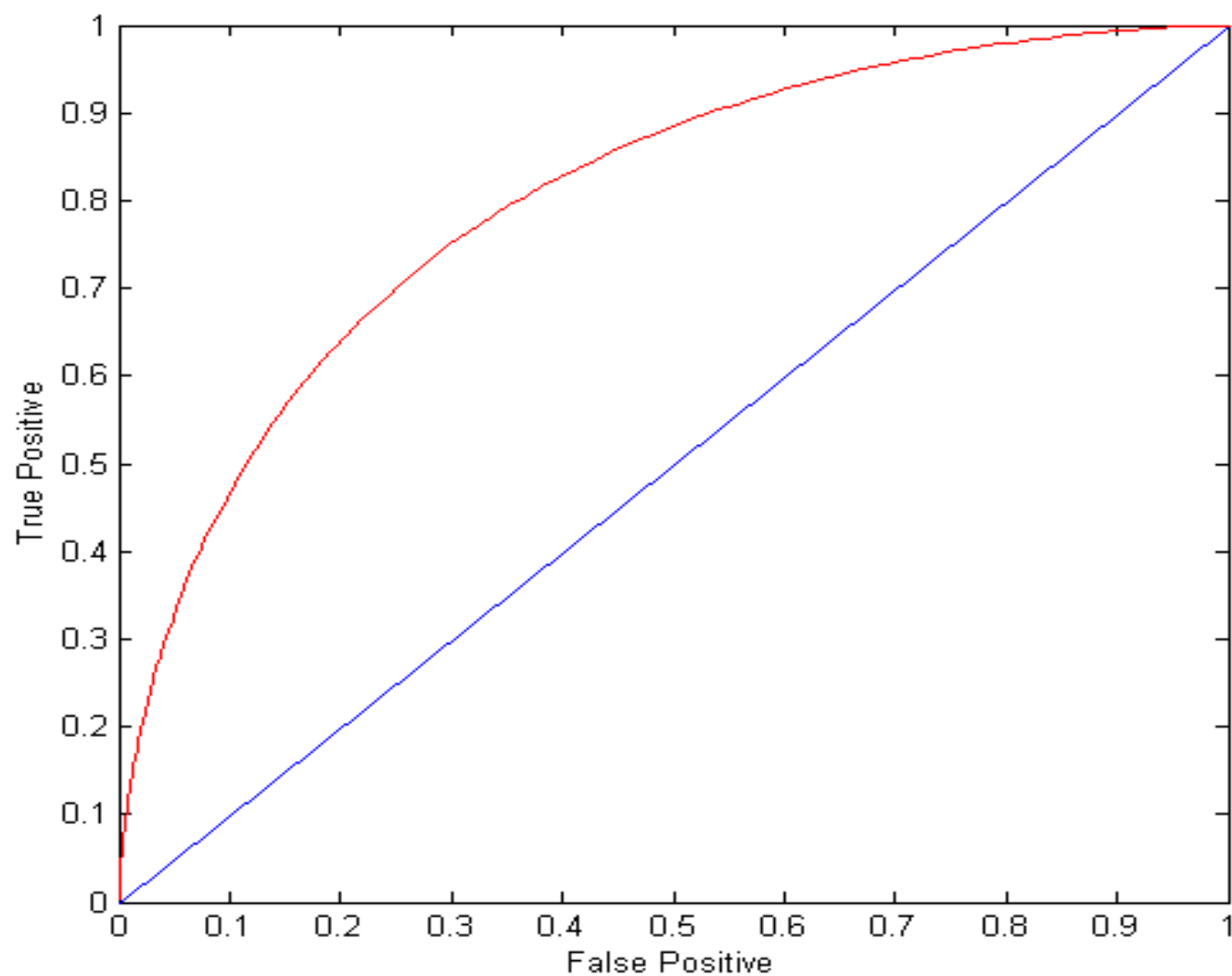


PREDICTION SCORES AND CONFIDENCE

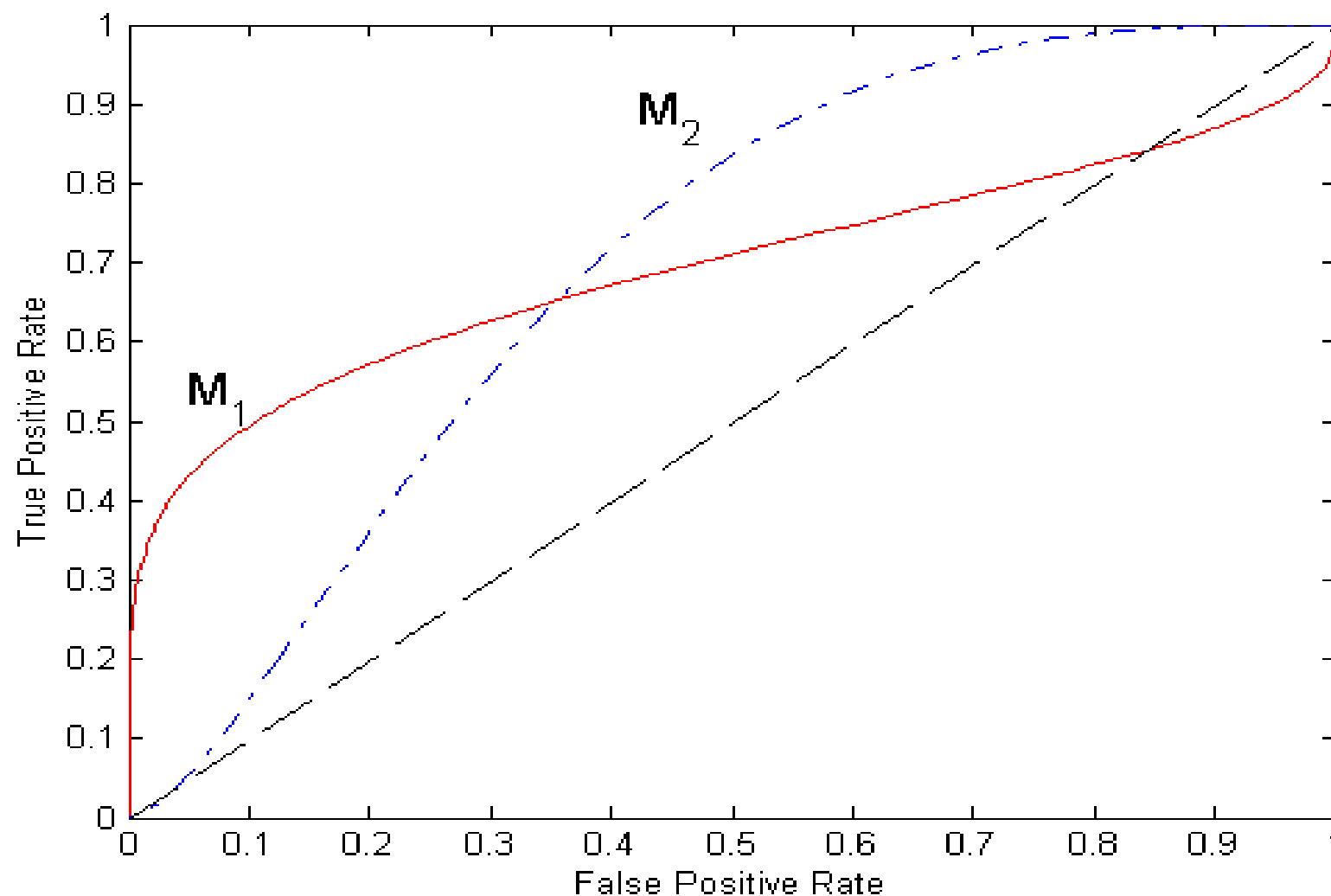
Observation	Actual Training Label/Class	Predicted Label/Class	Classification Type	Prediction Score Model A	Prediction Score Model B
1	Yes	Yes	TP	0.9	1.0
2	No	No	TN	0.2	0.1
3	Yes	Yes	TP	0.8	0.9
4	Yes	No	FN	0.1	0.4
5	Yes	Yes	TP	0.7	0.8
6	Yes	No	FN	0.3	0.4
7	No	No	TN	0.4	0.3
8	No	No	TN	0.3	0.2
9	No	No	TN	0.4	0.3
10	No	Yes	FP	0.6	0.5



ROC CURVE



ROC CURVE MODEL COMPARISON



ROC CURVE AND AUC VALUES

