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Model Comparison Report

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Fit and error measures

Model	Accuracy	F1	AUC	Accuracy_Creditworthy	Accuracy_Non-Creditworthy
Decision_Tree_P4	0.6667	0.7706	0.6292	0.8000	0.3556
Logistic_stepwise	0.7600	0.8364	0.7306	0.8762	0.4889
Forest_model_P4	0.8133	0.8803	0.7376	0.9810	0.4222
Boost_P4	0.7800	0.8596	0.7503	0.9619	0.3556

Model: model names in the current comparison.

Accuracy: overall accuracy, number of correct predictions of all classes divided by total sample number.

Accuracy_[class name]: accuracy of Class [class name] is defined as the number of cases that are **correctly** predicted to be Class [class name] divided by the total number of cases that actually belong to Class [class name], this measure is also known as *recall*.

AUC: area under the ROC curve, only available for two-class classification.

F1: F1 score, $2 * \text{precision} * \text{recall} / (\text{precision} + \text{recall})$. The *precision* measure is the percentage of actual members of a class that were predicted to be in that class divided by the total number of cases predicted to be in that class. In situations where there are three or more classes, average precision and average recall values across classes are used to calculate the F1 score.

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Confusion matrix of Boost_P4

	Actual_Creditworthy	Actual_Non-Creditworthy
Predicted_Creditworthy	101	29
Predicted_Non-Creditworthy	4	16

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Confusion matrix of Decision_Tree_P4

	Actual_Creditworthy	Actual_Non-Creditworthy
Predicted_Creditworthy	84	29
Predicted_Non-Creditworthy	21	16

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Confusion matrix of Forest_model_P4

	Actual_Creditworthy	Actual_Non-Creditworthy
Predicted_Creditworthy	103	26
Predicted_Non-Creditworthy	2	19

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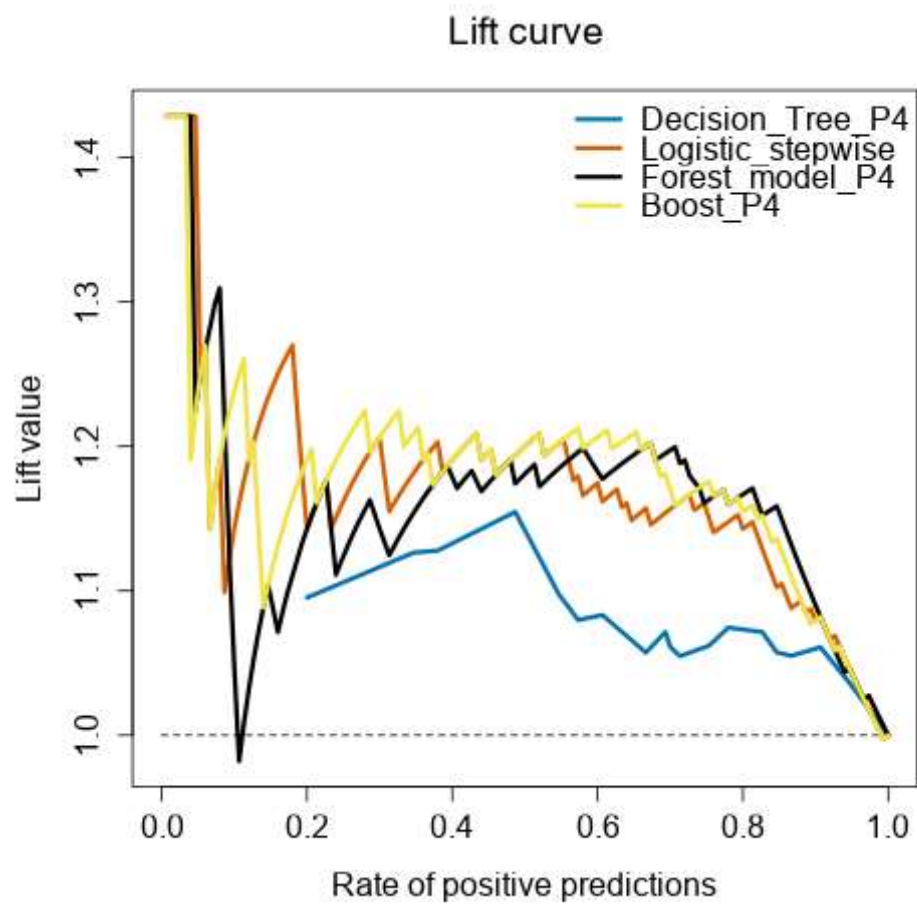
Confusion matrix of Logistic_stepwise

	Actual_Creditworthy	Actual_Non-Creditworthy
Predicted_Creditworthy	92	23
Predicted_Non-Creditworthy	13	22

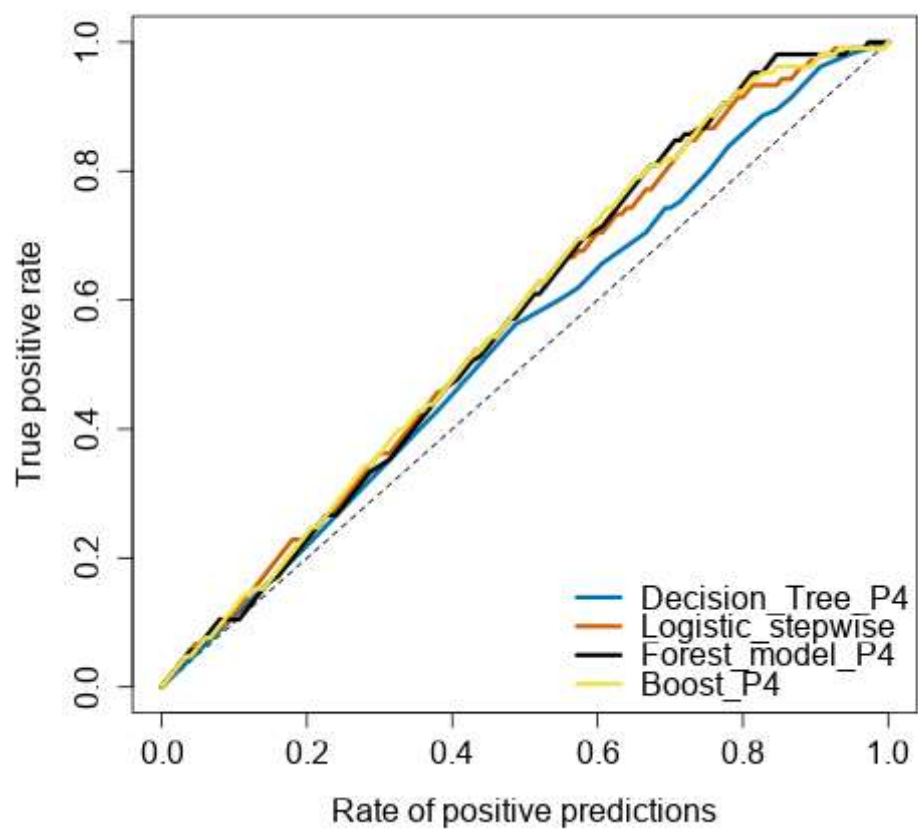
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Performance Diagnostic Plots

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Gain chart



Precision and recall curve

