

Analyse et Prédiction des Maladies Cardiaques

Statistiques des modèles - Ensemble de test

Version corrigée - Avril 2025

Performances des modèles - Ensemble de test

Modèle	Accuracy	Precision	Recall	F1-Score	AUC	TP	TN	FP	FN
Logistic Regression	83.2%	80.4%	88.9%	84.4%	92.7%	152	126	37	19
Decision Tree	85.3%	83.9%	88.3%	86.0%	90.4%	151	134	29	20
KNN	85.9%	84.8%	88.3%	86.5%	92.6%	151	136	27	20
Random Forest	89.5%	88.2%	91.8%	90.0%	95.9%	157	142	21	14
AdaBoost	73.1%	74.3%	72.5%	73.4%	86.2%	124	120	43	47
SVM	88.6%	87.6%	90.6%	89.1%	95.5%	155	141	22	16
Voting Ensemble	86.8%	85.5%	89.5%	87.4%	94.9%	153	137	26	18

Détails - Logistic Regression

Métriques principales

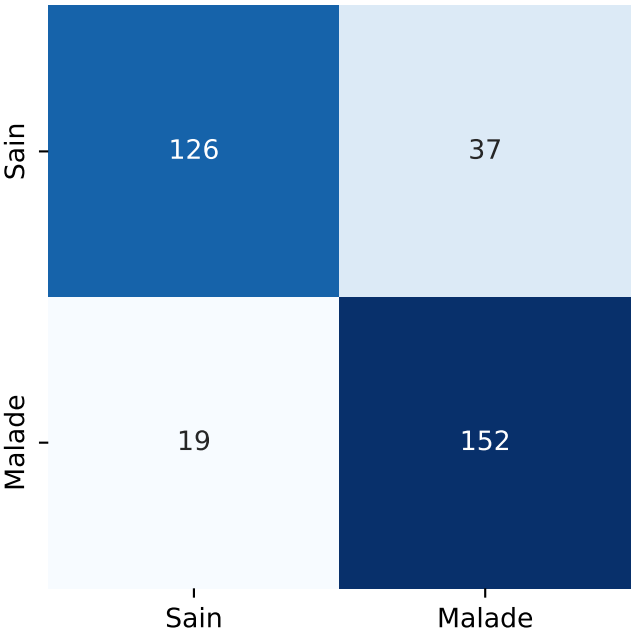
Accuracy: 83.2%

Precision: 80.4%

Recall: 88.9%

F1-Score: 84.4%

Matrice de confusion



Détail matrice

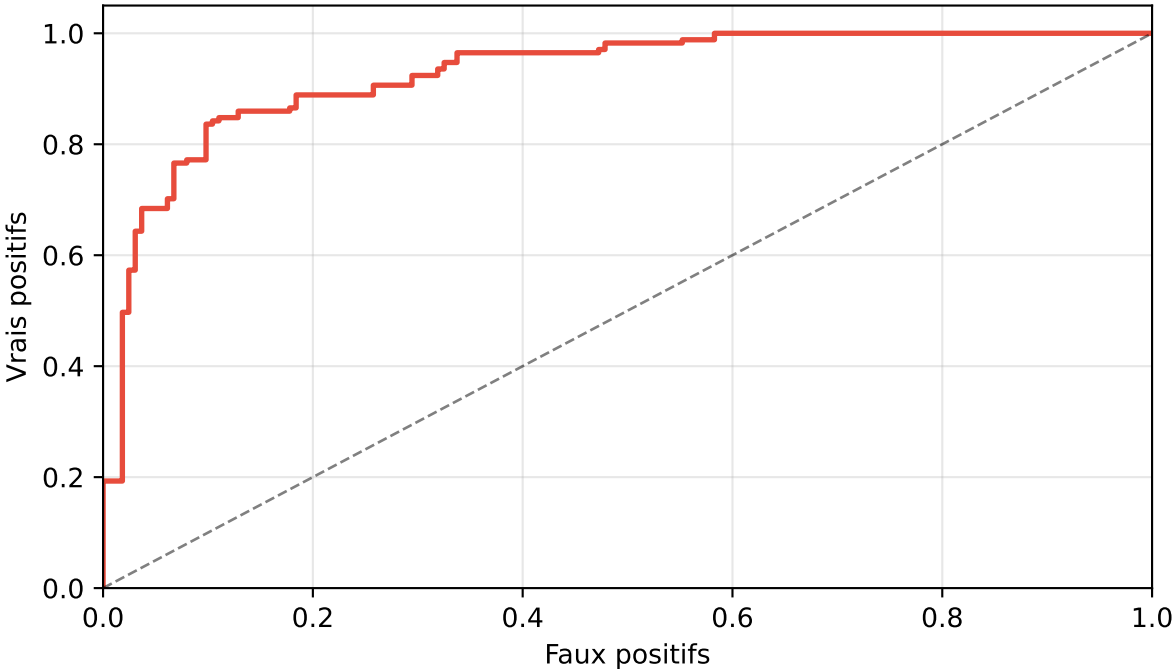
TP: 152

FP: 37

TN: 126

FN: 19

ROC (AUC = 0.927)



Détails - Decision Tree

Métriques principales

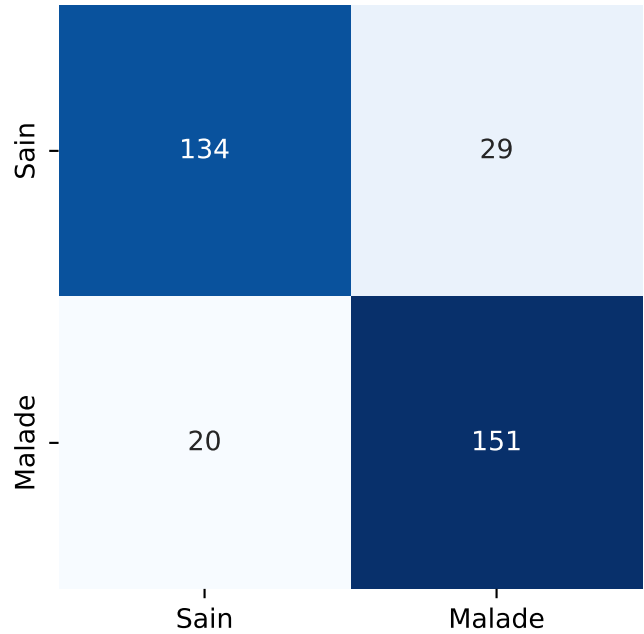
Accuracy: 85.3%

Precision: 83.9%

Recall: 88.3%

F1-Score: 86.0%

Matrice de confusion



Détail matrice

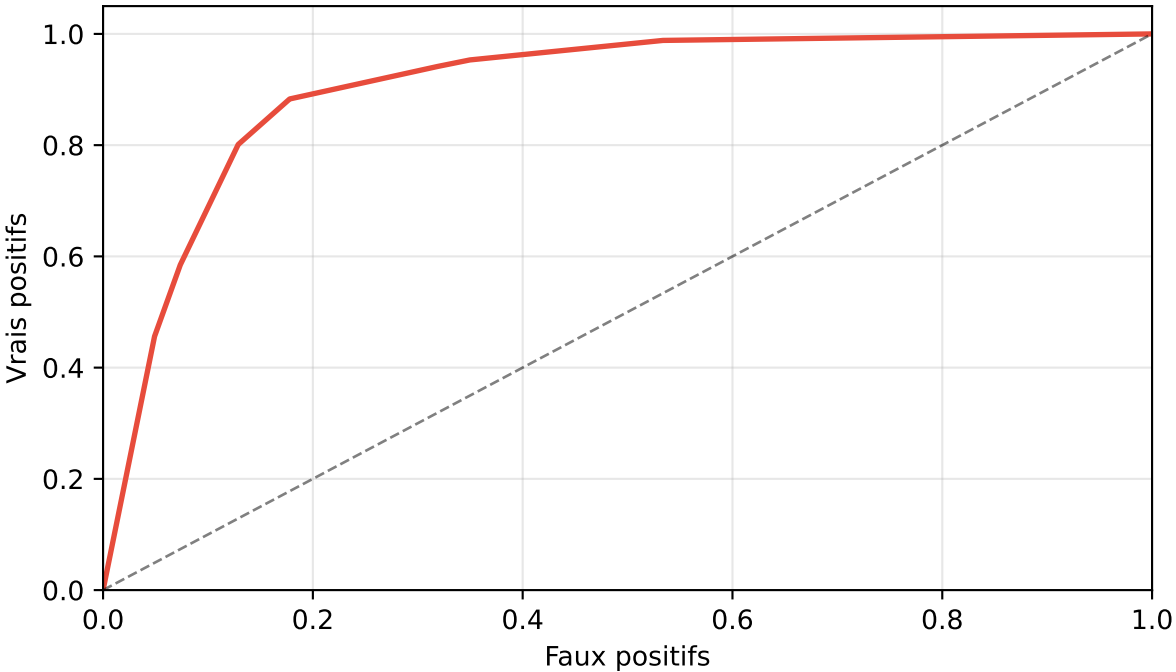
TP: 151

FP: 29

TN: 134

FN: 20

ROC (AUC = 0.904)



Détails - KNN

Métriques principales

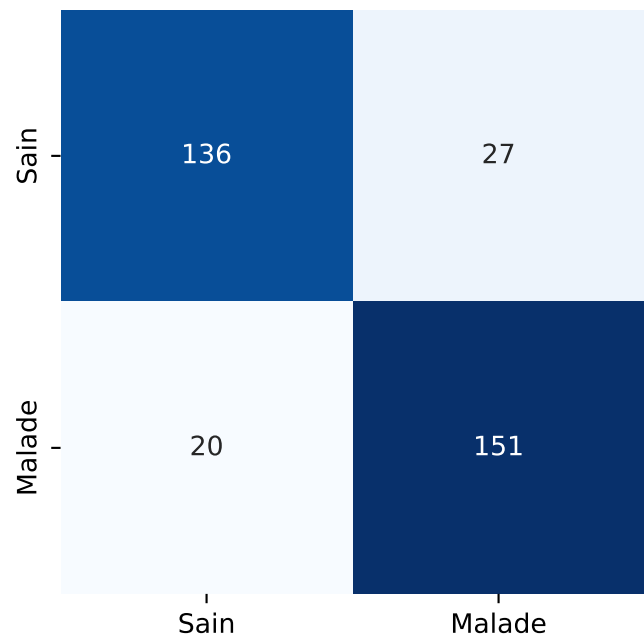
Accuracy: 85.9%

Precision: 84.8%

Recall: 88.3%

F1-Score: 86.5%

Matrice de confusion



Détail matrice

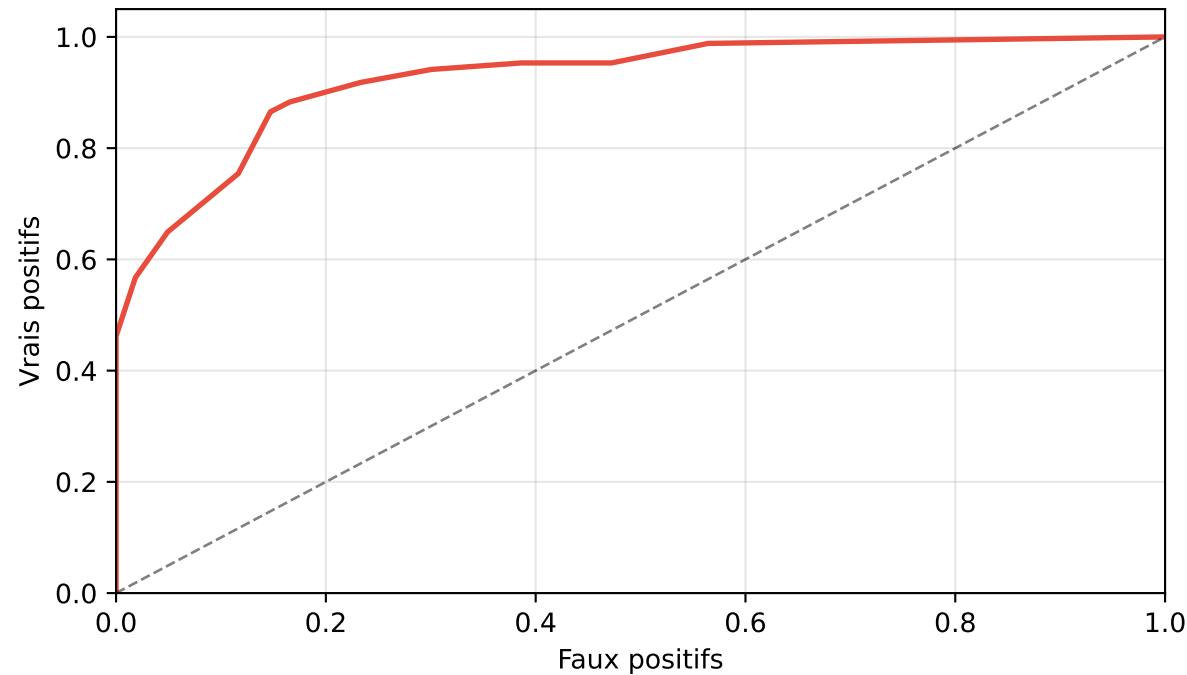
TP: 151

FP: 27

TN: 136

FN: 20

ROC (AUC = 0.926)



Détails - Random Forest

Métriques principales

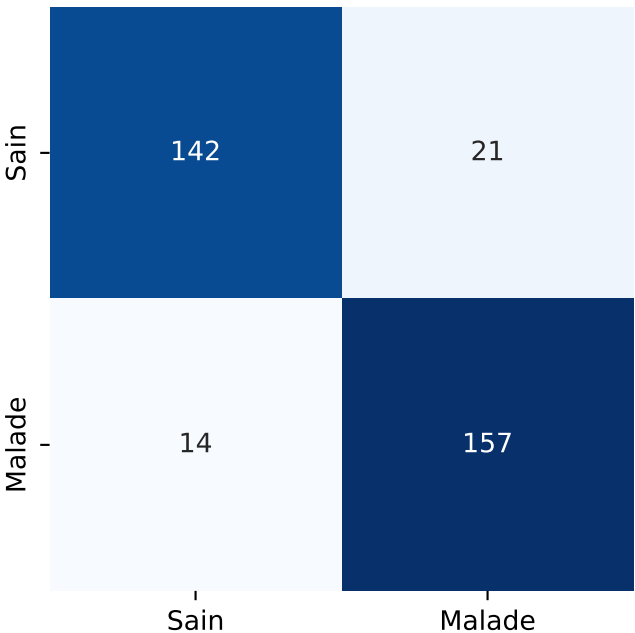
Accuracy: 89.5%

Precision: 88.2%

Recall: 91.8%

F1-Score: 90.0%

Matrice de confusion



Détail matrice

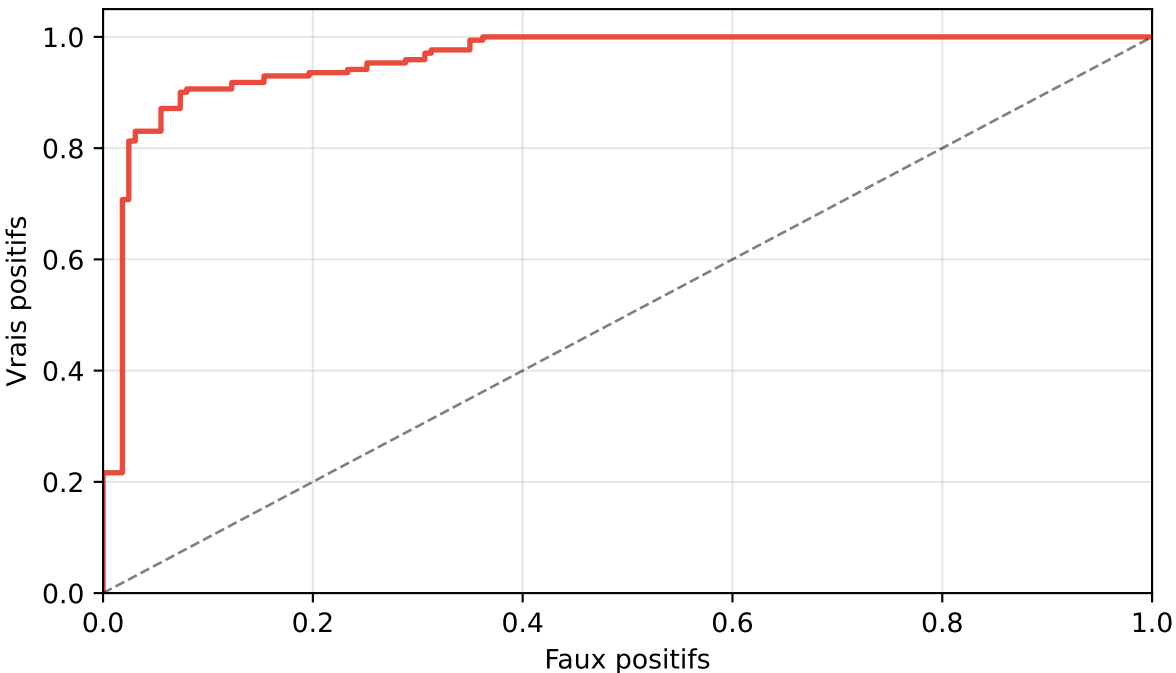
TP: 157

TN: 142

FP: 21

FN: 14

ROC (AUC = 0.959)



Détails - AdaBoost

Métriques principales

Accuracy: 73.1%

Precision: 74.3%

Recall: 72.5%

F1-Score: 73.4%

Détail matrice

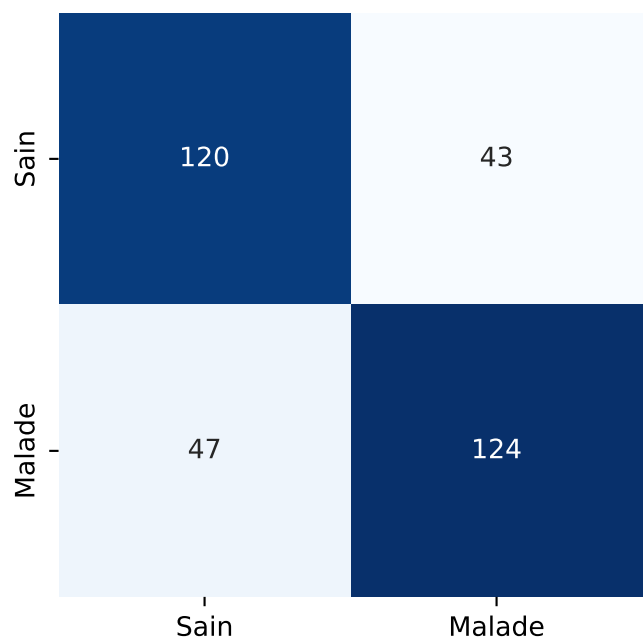
TP: 124

FP: 43

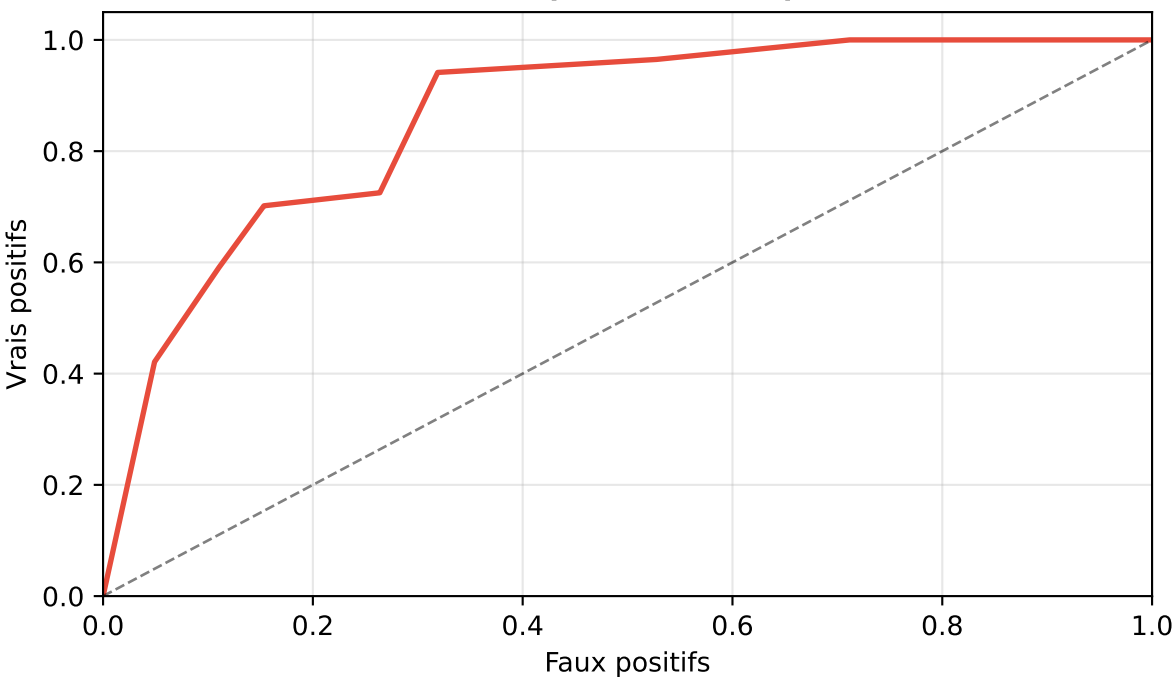
TN: 120

FN: 47

Matrice de confusion



ROC (AUC = 0.862)



Détails - SVM

Métriques principales

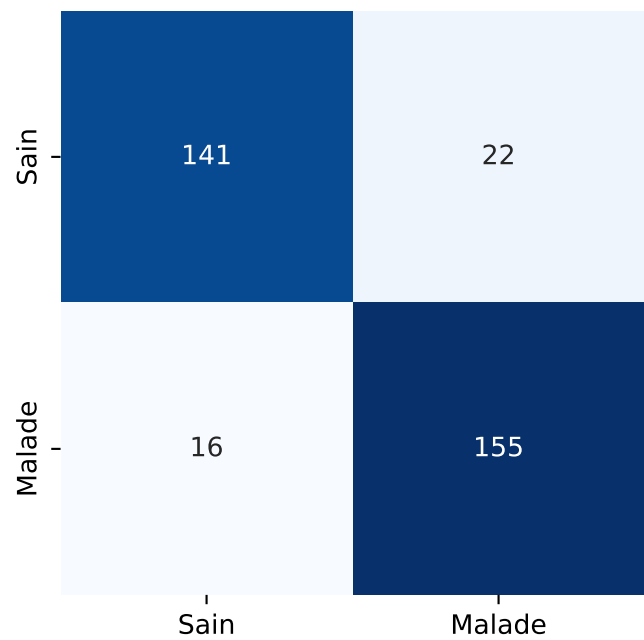
Accuracy: 88.6%

Precision: 87.6%

Recall: 90.6%

F1-Score: 89.1%

Matrice de confusion



Détail matrice

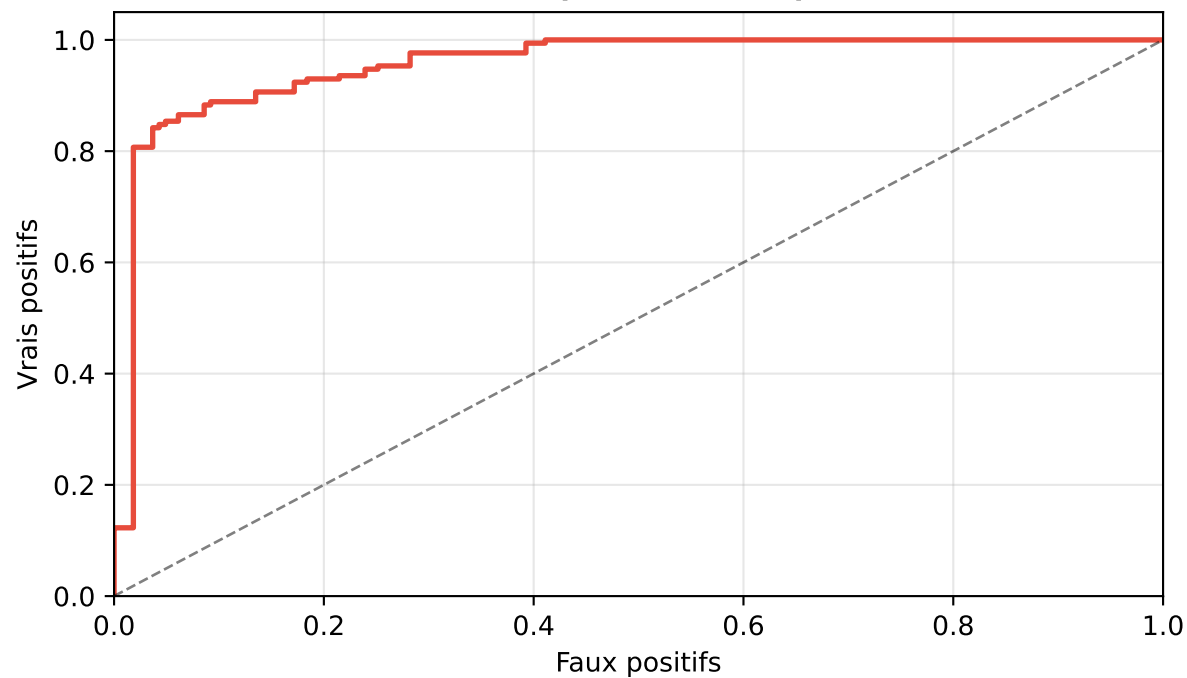
TP: 155

FP: 22

TN: 141

FN: 16

ROC (AUC = 0.955)



Détails - Voting Ensemble

Métriques principales

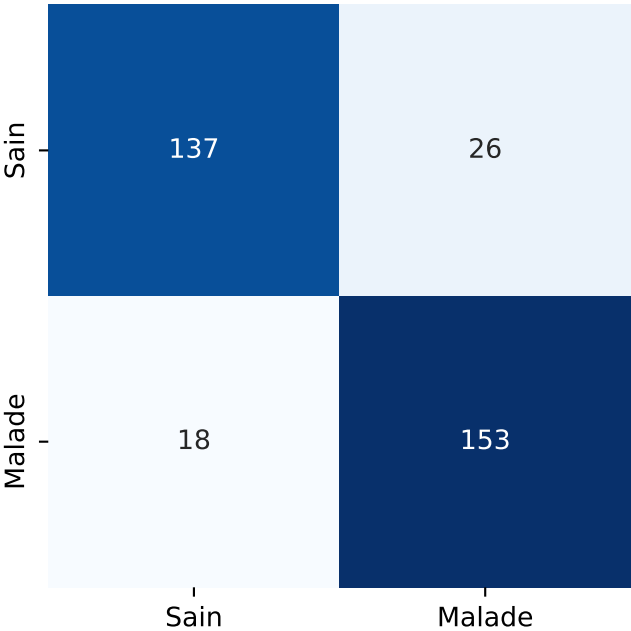
Accuracy: 86.8%

Precision: 85.5%

Recall: 89.5%

F1-Score: 87.4%

Matrice de confusion



Détail matrice

TP: 153

FP: 26

TN: 137

FN: 18

ROC (AUC = 0.949)

