

Analyse et Prédition des Maladies Cardiaques

Statistiques des modèles - Ensemble de test

Date: Avril 2025

Performances des modèles sur l'Ensemble de test

Modèle	Accuracy	Precision	Recall	F1-Score	AUC	TP	TN	FP	FN
Logistic Regression	86.42%	80.49%	91.67%	85.71%	92.41%	33	37	8	3
Decision Tree	77.78%	73.68%	77.78%	75.68%	85.37%	28	35	10	8
KNN	87.65%	82.50%	91.67%	86.84%	90.56%	33	38	7	3
Random Forest	91.36%	87.18%	94.44%	90.67%	93.21%	34	40	5	2
AdaBoost	88.89%	84.62%	91.67%	88.00%	91.85%	33	39	6	3
SVM	88.89%	82.93%	94.44%	88.31%	90.43%	34	38	7	2
Voting Ensemble	91.36%	87.18%	94.44%	90.67%	91.85%	34	40	5	2

Statistiques détaillées - Logistic Regression

Métriques principales:

Accuracy: 86.42%

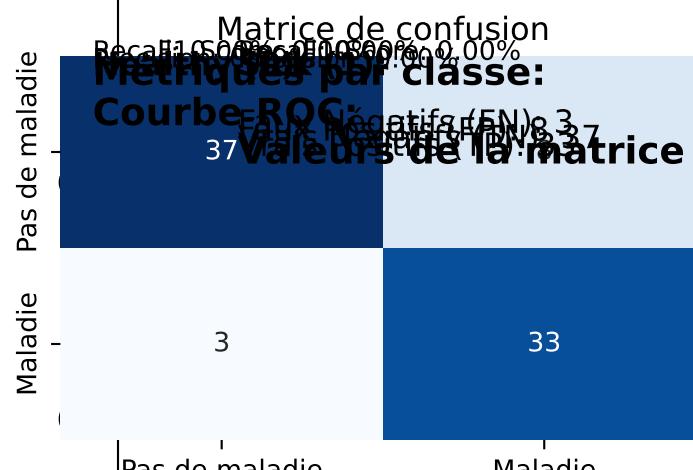
Precision: 80.49%

Recall (Sensibilité): 91.67%

F1-Score: 85.71%

AUC: 0.9241

Matrice de confusion:

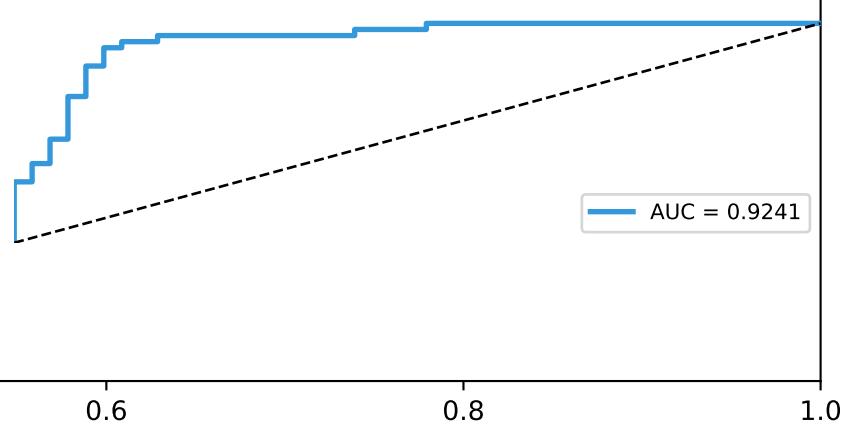


Métriques par classe:

Courbe ROC:

Valeurs de la matrice de confusion:

Courbe ROC



Statistiques détaillées - Decision Tree

Métriques principales:

Accuracy: 77.78%

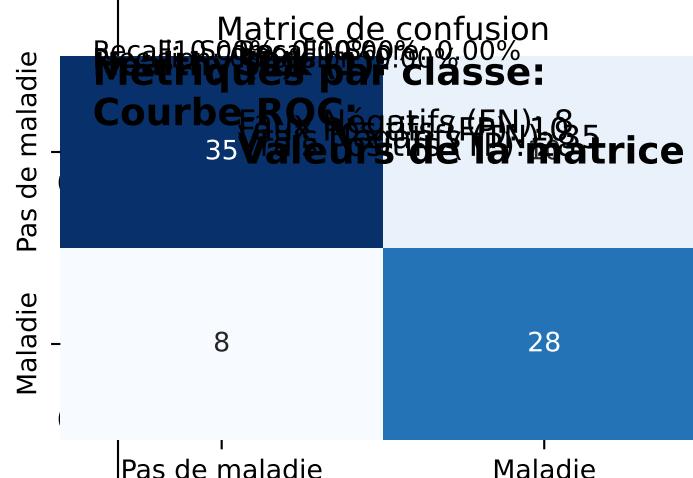
Precision: 73.68%

Recall (Sensibilité): 77.78%

F1-Score: 75.68%

AUC: 0.8537

Matrice de confusion:

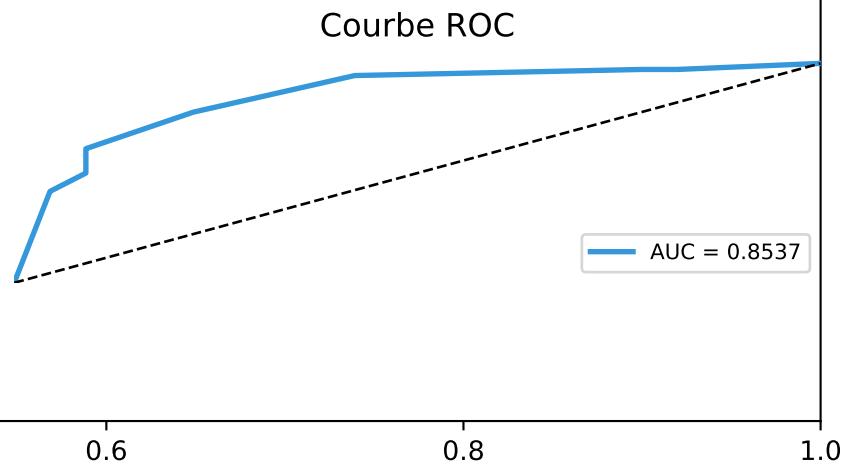


Métriques par classe:

Courbe ROC

FAV = 0.16 | FN = 0.25 | TN = 0.85 | TP = 0.75

Valeurs de la matrice de confusion:



Statistiques détaillées - KNN

Métriques principales:

Accuracy: 87.65%

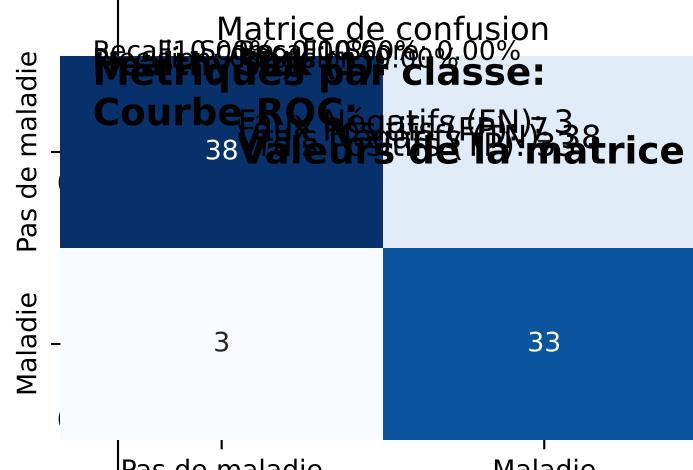
Precision: 82.50%

Recall (Sensibilité): 91.67%

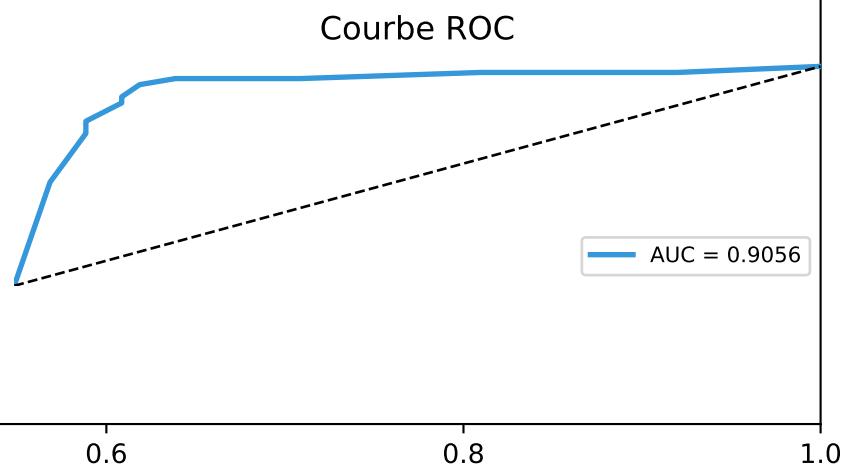
F1-Score: 86.84%

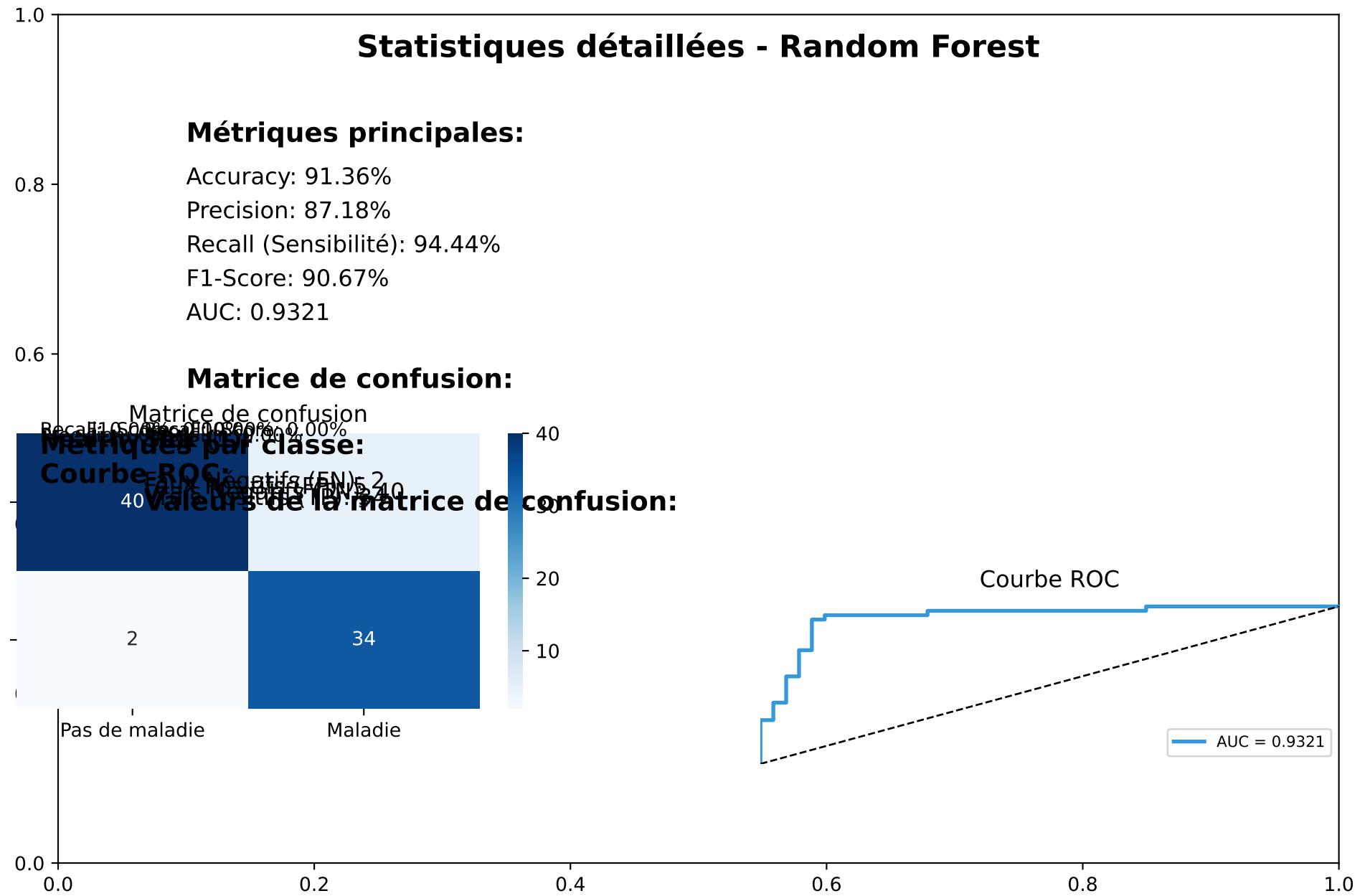
AUC: 0.9056

Matrice de confusion:



Valeurs de la matrice de confusion:





Statistiques détaillées - AdaBoost

Métriques principales:

Accuracy: 88.89%

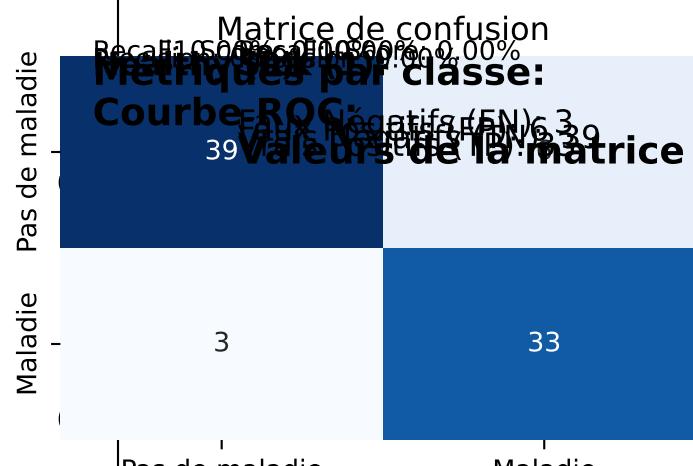
Precision: 84.62%

Recall (Sensibilité): 91.67%

F1-Score: 88.00%

AUC: 0.9185

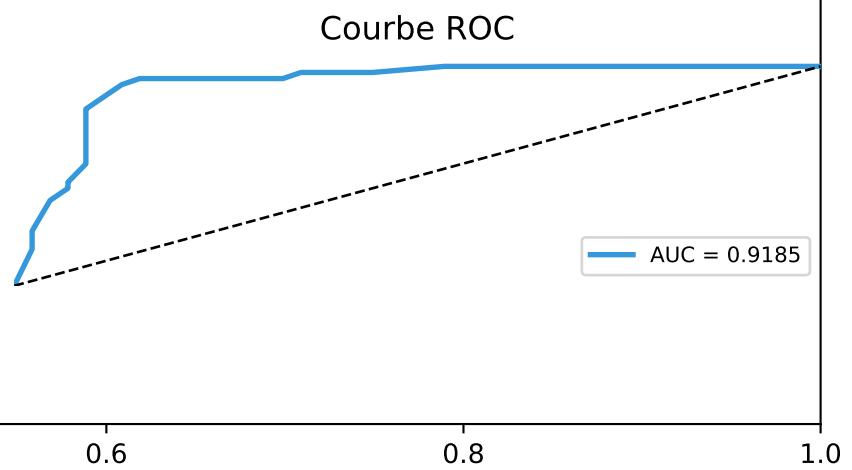
Matrice de confusion:



Métriques par classe:

Courbe ROC

Valeurs de la matrice de confusion:



Statistiques détaillées - SVM

Métriques principales:

Accuracy: 88.89%

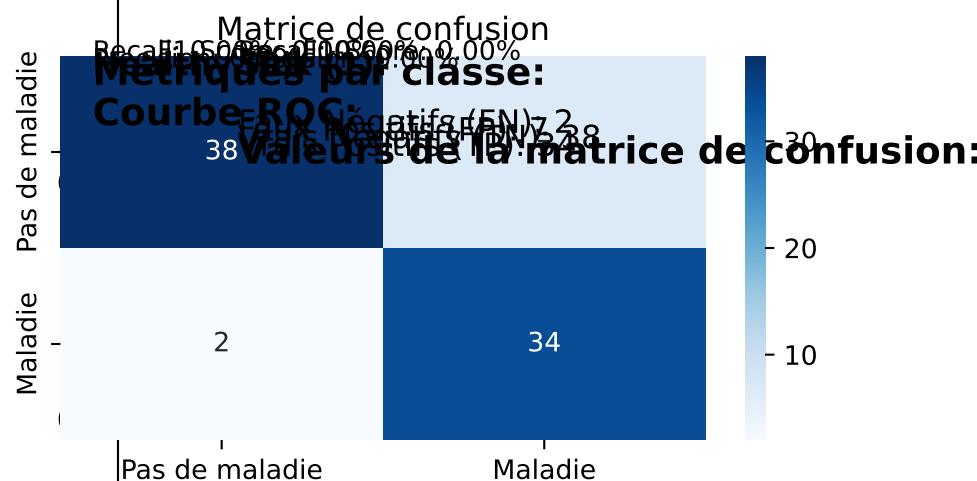
Precision: 82.93%

Recall (Sensibilité): 94.44%

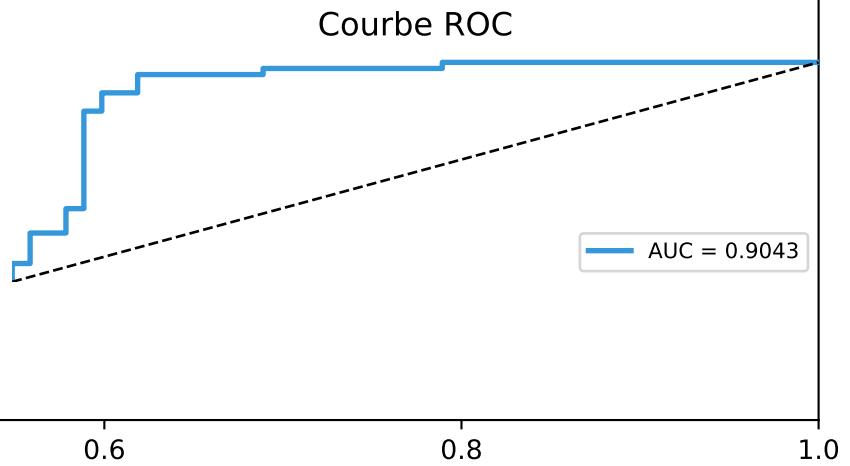
F1-Score: 88.31%

AUC: 0.9043

Matrice de confusion:



Courbe ROC



Statistiques détaillées - Voting Ensemble

Métriques principales:

Accuracy: 91.36%

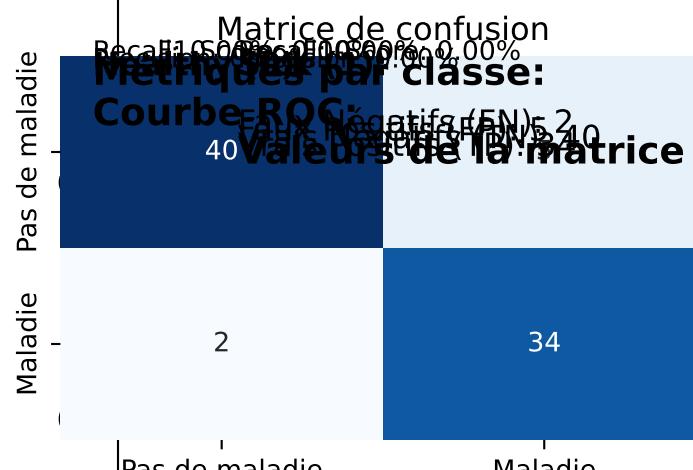
Precision: 87.18%

Recall (Sensibilité): 94.44%

F1-Score: 90.67%

AUC: 0.9185

Matrice de confusion:



Courbe ROC

