```
dt_experiments = [

{'criterion': 'gini', 'max_depth': 3, 'min_samples_split': 2},
```

--- Decision Tree Evaluation ---

Accuracy: 0.9473684210526315

Precision: 0.9452054794520548

Recall: 0.971830985915493

F1 Score: 0.9583333333333334

Confusion Matrix:

 [[39 4]

 [2 69]]

```
{'criterion': 'entropy', 'max_depth': 5, 'min_samples_split': 5},
```

--- Decision Tree Evaluation ---

Accuracy: 0.956140350877193

Precision: 0.9459459459459459

Recall: 0.9859154929577465

F1 Score: 0.9655172413793104

Confusion Matrix:

 [[39 4]

 [1 70]]

```
{'criterion': 'gini', 'max_depth': 10, 'min_samples_split': 10},
```

--- Decision Tree Evaluation ---

Accuracy: 0.9473684210526315

Precision: 0.9577464788732394

Recall: 0.9577464788732394

F1 Score: 0.9577464788732394

Confusion Matrix:

 [[40 3]

 [3 68]]

```
{'criterion': 'entropy', 'max_depth': 8, 'min_samples_split': 2},
```

--- Decision Tree Evaluation ---

Accuracy: 0.9473684210526315

Precision: 0.9333333333333333

Recall: 0.9859154929577465

F1 Score: 0.958904109589041

Confusion Matrix:

 [[38 5]

 [1 70]]

{'criterion': 'gini', 'max_depth': 5, 'min_samples_split': 5}

--- Decision Tree Evaluation ---

Accuracy: 0.9473684210526315

Precision: 0.9577464788732394

Recall: 0.9577464788732394

F1 Score: 0.9577464788732394

Confusion Matrix:

 [[40 3]

 [3 68]]

]

```
rf_experiments = [

{'n_estimators': 50, 'max_depth': 5, 'min_samples_split': 2},
```

--- Random Forest Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40 3]

 [1 70]]

```
{'n_estimators': 100, 'max_depth': 10, 'min_samples_split': 5},
```

--- Random Forest Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40 3]

 [1 70]]

```
{'n_estimators': 200, 'max_depth': 20, 'min_samples_split': 2},
```

--- Random Forest Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40 3]

 [1 70]]


```
{'n_estimators': 50, 'max_depth': 10, 'min_samples_split': 10},
```

--- Random Forest Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40 3]

 [1 70]]

{'n_estimators': 100, 'max_depth': 5, 'min_samples_split': 10}

--- Random Forest Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40 3]

 [1 70]]

 ]

```
ab_experiments = [

{'n_estimators': 50, 'learning_rate': 0.5, 'algorithm': 'SAMME'},

--- AdaBoost Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40  3]

 [ 1 70]]

{'n_estimators': 100, 'learning_rate': 1.0, 'algorithm': 'SAMME.R'},

--- AdaBoost Evaluation ---

Accuracy: 0.9736842105263158

Precision: 0.9722222222222222

Recall: 0.9859154929577465

F1 Score: 0.9790209790209791

Confusion Matrix:

 [[41  2]

 [ 1 70]]

{'n_estimators': 200, 'learning_rate': 0.1, 'algorithm': 'SAMME'},

--- AdaBoost Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

 [[40  3]

 [ 1 70]]

{'n_estimators': 50, 'learning_rate': 1.5, 'algorithm': 'SAMME.R'},

--- AdaBoost Evaluation ---

Accuracy: 0.9736842105263158
```

Precision: 0.9722222222222222

Recall: 0.9859154929577465

F1 Score: 0.9790209790209791

Confusion Matrix:

```
 [[41  2]
 [ 1 70]]
```

{'n_estimators': 100, 'learning_rate': 0.5, 'algorithm': 'SAMME'}

--- AdaBoost Evaluation ---

Accuracy: 0.9649122807017544

Precision: 0.958904109589041

Recall: 0.9859154929577465

F1 Score: 0.9722222222222222

Confusion Matrix:

```
 [[40  3]
 [ 1 70]]
```

]