Evaluate All-Feature SV Classifier

```
# Train the Logistic Regression classifier with best feature and associated best coefficient
best_svm = SVC(C=best_coeff_svm, kernel="rbf")
best_svm.fit(X_train, y_train)

# Make predictions on the test data
best_svm_preds = best_svm.predict(X_test)

# Display report on model
display_model_evaluation(
    y_test,
    best_svm_preds,
    x_feature_names,
    "Support Vector",
    best_score_svm,
    best_coeff_svm,
)
```

```
--NORMAL--
```

Model Summary

Model Type: Support Vector
Features Used: sepal length (cm), sepal width (cm), petal length (cm), petal width (cm)
Regularization Coefficient: 2.78e+00
Accuracy on Training Data: 0.973

Note: Above metrics are based on CV on training data. Below metrics are based on evaluation on test data.

Confusion Matrix

Confusion Matrix

	Setosa	Versicolor	Virginica
Setosa	13	0	0
Versicolor	0	14	1
Virginica	0	0	10

Classification Report

Classification Report

	precision	recall	f1-score	support
Setosa	1.00	1.00	1.00	13
Versicolor	1.00	0.93	0.97	15
Virginica	0.91	1.00	0.95	10
accuracy			0.97	38
macro avg	0.97	0.98	0.97	38
weighted avg	0.98	0.97	0.97	38