

```
# =====
# File: train_model.py
# =====
import pandas as pd
import joblib
from sklearn.ensemble import RandomForestClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import classification_report

# Load dataset (assuming the CSV is in the same folder)
data = pd.read_csv("creditcard.csv")

# Prepare data
X = data.drop("Class", axis=1)
y = data["Class"]

# Split data
X_train, X_test, y_train, y_test = train_test_split(X, y,

# Train model
model = RandomForestClassifier(n_estimators=100, random_st
model.fit(X_train, y_train)

# Evaluate model
y_pred = model.predict(X_test)
print("\nModel Evaluation:")
print(classification_report(y_test, y_pred))

# Save model
joblib.dump(model, "model.pkl")

# =====
# File: app.py
# =====
import gradio as gr
import numpy as np
import joblib

# Load trained model
model = joblib.load("model.pkl")

# Define prediction function
def predict_fraud(*features):
    features = np.array(features).reshape(1, -1)
    prediction = model.predict(features)[0]
    return "Fraudulent Transaction" if prediction == 1 els

# Feature labels (Time, V1 to V28 + Amount)
input_labels = ["Time"] + [f"V{i}" for i in range(1, 29)]

# Create Gradio interface
```

NameError X

...



Please explain the error:

NameError: name 'pandas' is n



Hypothesis

The traceback indicates a

NameError: name 'pandas' is not defined. This error occurs when the Python interpreter encounters a name (in this case, pandas) that it doesn't recognize. Based on the provided code and the global variables (which are empty, meaning no variables have been defined), the most likely cause is that the user is trying to use the names of libraries (pandas, numpy, scikit-learn, joblib, gradio) without explicitly importing them first. In Python, you must import a library before you can use its contents or even refer to its name [1]. The code pandas, numpy, etc., on their own, don't do anything meaningful in Python unless they are being used in conjunction with an import statement or as part of a larger expression.

Suggested Changes

To resolve the NameError, you need to import the libraries you intend to use. If you are trying to use these lines to install the libraries, you should use the !pip install command instead. If you are trying to

```
.. Create Gradio interface
interface = gr.Interface(
    fn=predict_fraud,
    inputs=[gr.Number(label=label) for label in input_labels],
    outputs="text",
    title="Credit Card Fraud Detection",
    description="Enter transaction details to predict if it's fraud"
)

# Run the app
if __name__ == "__main__":
    interface.launch()
```

check if the libraries are installed,
you can attempt to import them



```
# If you want to install the
# !pip install pandas
# !pip install numpy
# !pip install scikit-learn
# !pip install joblib
# !pip install gradio
```



```
# If you want to import the libraries
import pandas
import numpy
import sklearn # scikit-learn
import joblib
import gradio
```

```
# If you are just trying to see if the libraries are installed
# and if there's no ImportError
```



[Use code with caution](#)

► Sources

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Model Evaluation:

	precision	recall	f1-score	support
0	1.00	1.00	1.00	2
accuracy			1.00	2
macro avg	1.00	1.00	1.00	2
weighted avg	1.00	1.00	1.00	2

It looks like you are running Gradio on a hosted a JupyterLab notebook.

Colab notebook detected. To show errors in colab notebook, click the link below.

* Running on public URL: <https://9da7acdb4bf06f6845.gcp.generativeai.com/share/9da7acdb4bf06f6845>

This share link expires in 1 week. For free permanent access, create a Google account.

Credit Card Fraud Detection

Enter transaction details to predict if it's fraudulent.

Time

0

Enter a prompt here



0 / 2000

Gemini can make mistakes so double-check responses and use code with caution. [Learn more](#)