

# Streamlit\BitCoin-Price-Pred\_app.py

```
1 import streamlit as st
2 import pandas as pd
3 import pickle
4 from sklearn.ensemble import RandomForestRegressor
5
6 # Load the trained model
7 model_path = 'C:\\Users\\Jan Saida\\random_forest_model.pkl'
8 with open(model_path, 'rb') as file:
9     model_rf = pickle.load(file)
10
11 # Function to predict based on user inputs
12 def predict_btc_price(input_data):
13     # Make prediction using the model
14     prediction = model_rf.predict(input_data)
15     return prediction[0] # Assuming model returns a single prediction
16
17 def main():
18     # Title of your web app
19     st.title('Predict BTC Close Price')
20
21     # Sidebar for user inputs
22     st.sidebar.title('Input Features')
23
24     # Inputs for USDT, BNB closing prices and volumes
25     usdt_close = st.sidebar.number_input('USDT Close Price', min_value=0.0, format="%.2f")
26     usdt_volume = st.sidebar.number_input('USDT Volume', min_value=0.0, format="%.2f")
27     bnb_close = st.sidebar.number_input('BNB Close Price', min_value=0.0, format="%.2f")
28     bnb_volume = st.sidebar.number_input('BNB Volume', min_value=0.0, format="%.2f")
29
30     # Create input dataframe
31     input_data = pd.DataFrame({
32         'USDT_Close': [usdt_close],
33         'USDT_Volume': [usdt_volume],
34         'BNB_Close': [bnb_close],
35         'BNB_Volume': [bnb_volume]
36     })
37
38     # Button to trigger prediction
39     if st.button('Predict BTC Close Price'):
40         predicted_price = predict_btc_price(input_data)
41         st.write('Predicted BTC Close Price:', predicted_price)
42
43 if __name__ == '__main__':
44     main()
45
```