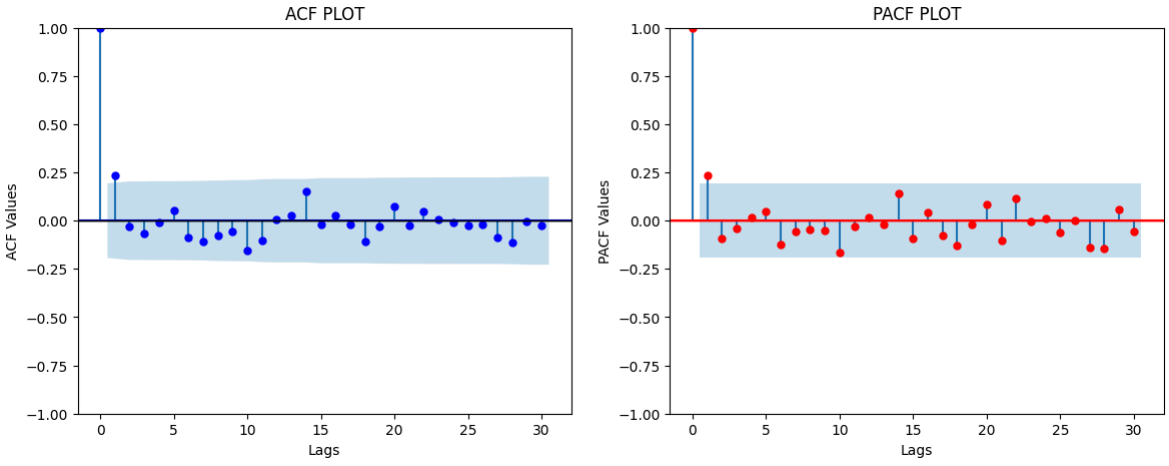
In [3]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from statsmodels.tsa.arima.model import ARIMA
from statsmodels.graphics.tsaplots import plot_acf, plot_pacf
```

In [4]:
```
df = pd.read_csv(r"C:\Users\HP\OneDrive\Desktop\NLP\Data\ML471_S3_Datafile_Pract

df['Date'] = pd.to_datetime(df['Date'])
df.set_index('Date', inplace=True)

if 'Close_diff' not in df.columns:
    df['Close_diff'] = df['Close'].diff()

df = df.dropna()

fig, axes = plt.subplots(1, 2, figsize=(14, 5))

plot_acf(df['Close_diff'], lags=30, ax=axes[0])

for line in axes[0].lines:
    line.set_color('blue')
    axes[0].axhline(0, color='black', lw=1)

    axes[0].set_title('ACF PLOT')
    axes[0].set_xlabel('Lags')
    axes[0].set_ylabel('ACF Values')

plot_pacf(df['Close_diff'], lags=30, method='ywm' ,ax=axes[1])

for line in axes[1].lines:
    line.set_color('red')
    axes[1].axhline(0, color='red', lw=1)

    axes[1].set_title('PACF PLOT')
    axes[1].set_xlabel('Lags')
    axes[1].set_ylabel('PACF Values')
```



In [ ]: