import pandas as pd

# Assuming 'data' is your DataFrame containing the interest rate data

# You may need to replace this with your actual DataFrame name

# Also assuming the column names are as described: Col A, Col B, Col C, ...

# Create a function for interpolation

def interpolate\_interest\_rates(data):

# Iterate through each row

for index, row in data.iterrows():

# Iterate through each column starting from the second one (since Col A is dates)

for i in range(1, len(data.columns)):

col = data.columns[i]

# Check for missing values

if pd.isnull(row[col]):

# Calculate interpolation for missing values

days\_in\_month = row['Col A'].days\_in\_month

prev\_month = row['Col A'] - pd.DateOffset(months=1)

# Assuming last day of previous month is available

prev\_month\_rate = data.loc[data['Col A'] == prev\_month, col].values[0]

current\_month\_rate = data.loc[data['Col A'] == row['Col A'], col].values[0]

# Calculate the interpolation

weight\_prev = (row['Col A'].day) / days\_in\_month

weight\_current = 1 - weight\_prev

interpolated\_rate = (weight\_prev \* current\_month\_rate) + (weight\_current \* prev\_month\_rate)

# Assign the interpolated value to the missing cell

data.at[index, col] = interpolated\_rate

return data

# Assuming 'your\_data' is your DataFrame containing the interest rate data

# Replace this with your actual DataFrame name

# Assuming your date column is named 'Col A'

# Also assuming the data is already sorted by date

# Interpolate missing values

interpolated\_data = interpolate\_interest\_rates(your\_data)