```
import numpy as np
import pandas as pd


# Example dataset
data = {
   'Feature1': [10, 20, 30, 40, 50],
   'Feature2': [5, 15, 25, 35, 45]
}


df = pd.DataFrame(data)


print("Original Data:")
print(df)
```

```
Original Data:
   Feature1  Feature2
0        10         5
1        20        15
2        30        25
3        40        35
4        50        45
```

```
def zscore_normalization(df):
   normalized_df = df.copy()
   for column in normalized_df.columns:
       mean = normalized_df[column].mean()
       std = normalized_df[column].std()
       normalized_df[column] = (normalized_df[column] - mean) / std
   return normalized_df


normalized_df = zscore_normalization(df)


print("\nNormalized Data (Z-score):")
print(normalized_df)
```

```
Normalized Data (Z-score):
   Feature1  Feature2
0 -1.264911 -1.264911
1 -0.632456 -0.632456
2  0.000000  0.000000
3  0.632456  0.632456
4  1.264911  1.264911
```

Start coding or generate with AI.