Topics
More
CATEGORIES
General
Site Feedback
All categories

2025 USA-NA-AIO Round 1, Problem 3, Part 9

USAAIO Mar 2025

Problem 9 (5 points, coding task)

Use `StandardScaler` that has been imported from `sklearn.preprocessing` (DO NOT IMPORT IT AGAIN) to do the following tasks.

1. Create an object called `scaler`.
2. Use `scaler.fit_transform` to scale each column in `X_train` to standard normal. Save the scaled training dataset as `X_train_scaled`.
3. Use `scaler.transform` to scale `X_test`. Save the scaled test dataset as `X_test_scaled`.
4. Add a column to `X_train_scaled` with all 1s. Do the same thing for `X_test_scaled`.
5. Print the types of objects `X_train_scaled` and `X_test_scaled`.
6. Print the shapes of objects `X_train_scaled` and `X_test_scaled`.
7. Print the first five rows of `X_train_scaled` and `X_test_scaled`.

USAAIO Mar 2025

```
### WRITE YOUR SOLUTION HERE ###
scaler = StandardScaler()

X_train_scaled = scaler.fit_transform(X_train)
X_test_scaled = scaler.transform(X_test)
```

Skip to main content

```
X_train_scaled = np.concat([X_train_scaled, np.ones((X_train_scaled.shape[0], 1))
X_test_scaled = np.concat([X_test_scaled, np.ones((X_test_scaled.shape[0], 1))],

print(type(X_train_scaled))
print(type(X_test_scaled))

print(X_train_scaled.shape)
print(X_test_scaled.shape)

print(X_train_scaled[:5])
print(X_test_scaled[:5])
""" END OF THIS PART """
```

✨ Related topics

Topic	Replies	Activity
2025 USA-NA-AIO Round 1, Problem 2, Part 4	1	Mar 2025
2025 USA-NA-AIO Round 1, Problem 3, Part 8	1	Mar 2025
2025 USA-NA-AIO Round 1, Problem 3, Part 1	2	Dec 2025
2026 USAAIO Round 1 Sample problems, Problem 9	1	Jan 14

Skip to main content

Topic	Replies	Activity
2025 USA-NA-AIO Round 1, Problem 2, Part 3	1	Mar 2025