```
2024-10-03 18:28:10,618 - Building LSTM model with input shape
(10, 1)
2024-10-03 18:28:10,634 - Starting training for LSTM model...
2024-10-03 18:28:18,436 - Model training complete. MAE:
0.08178112004919455, MSE: 0.008384029096638166, R2:
0.9335198238521533
2024-10-03 18:28:41,358 - LSTM Model - MAE: 0.08178112004919455,
MSE: 0.008384029096638166, R2 Score: 0.9335198238521533
2024-10-03 18:31:09,899 - Building LSTM model with input shape
(10, 1)
2024-10-03 18:31:09,902 - Starting training for LSTM model...
2024-10-03 18:31:17,165 - Model training complete. MAE:
0.10006858775468808, MSE: 0.012571809122514278, R2:
0.9003133129276727
2024-10-03 18:31:31,950 - LSTM Model - MAE: 0.10006858775468808,
MSE: 0.012571809122514278, R2 Score: 0.9003133129276727
2024-10-03 18:38:51,701 - Building LSTM model with input shape
(10, 1)
2024-10-03 18:38:51,706 - Starting training for LSTM model...
2024-10-03 18:38:58,173 - Model training complete. MAE:
0.11519860795117379, MSE: 0.016379962779301482, R2:
0.8701170048062237
2024-10-03 18:39:18,223 - LSTM Model - MAE: 0.11519860795117379,
MSE: 0.016379962779301482, R2 Score: 0.8701170048062237
2024-10-03 18:46:42,027 - Building LSTM model with input shape
(10, 1)
2024-10-03 18:46:42,032 - Starting training for LSTM model...
2024-10-03 18:46:51,333 - Model training complete. MAE:
0.061447702620241344, MSE: 0.005071332717761161, R2:
0.9597874615539814
2024-10-03 18:47:06,985 - LSTM Model - MAE:
0.061447702620241344, MSE: 0.005071332717761161, R2 Score:
0.9597874615539814
```

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2024-10-03 18:50:22,277 - Building LSTM model with input shape
(10, 1)
2024-10-03 18:50:22,289 - Starting training for LSTM model...
2024-10-03 18:50:29,336 - Model training complete. MAE:
0.1003314728029851, MSE: 0.012557193916351803, R2:
0.9004292024920956
2024-10-03 18:50:44,426 - LSTM Model - MAE: 0.1003314728029851,
MSE: 0.012557193916351803, R2 Score: 0.9004292024920956
2024-10-03 19:01:59,006 - Building LSTM model with input shape
(10, 3)
2024-10-03 19:01:59,014 - Starting training for LSTM model...
2024-10-06 17:54:28,165 - Building LSTM model with input shape
(10, 1)
2024-10-06 17:54:28,170 - Starting training for LSTM model...
2024-10-06 17:54:35,491 - Model training complete. MAE:
0.07879188189369488, MSE: 0.007809961578005144, R2:
0.9380718249627867
2024-10-06 17:54:54,609 - LSTM Model - MAE: 0.07879188189369488,
MSE: 0.007809961578005144, R2 Score: 0.9380718249627867
2024-10-06 18:16:27,049 - Building LSTM model with input shape
(10, 207)
2024-10-06 18:16:27,054 - Starting training for LSTM model...
2024-10-06 18:18:59,302 - Model training complete. MAE:
0.038002186919906, MSE: 0.00858810208558167, R2:
0.9177395006372965
2024-10-06 18:19:21,792 - LSTM Model - MAE: 0.038002186919906,
MSE: 0.00858810208558167, R2 Score: 0.9177395006372965
2024-10-06 19:14:47,262 - Building LSTM model with input shape
(10, 207)
2024-10-06 19:14:47,273 - Starting training for LSTM model...
2024-10-06 19:16:27,754 - Model training complete. MAE:
0.039729712449196174, MSE: 0.00914029321697811, R2:
0.9124503788080872
```

```
2024-10-06 19:16:27,899 - Model saved as 1stm model.pkl
2024-10-06 19:16:27,991 - LSTM Model - MAE:
0.039729712449196174, MSE: 0.00914029321697811, R2 Score:
0.9124503788080872
2024-10-08 00:04:55,564 - Building LSTM model with input shape
(10, 207)
2024-10-08 00:04:55,568 - Starting training for LSTM model...
2024-10-08 00:05:47,161 - Model training complete. MAE:
0.04162970831818715, MSE: 0.009068238198058645, R2:
0.9131405524668116
2024-10-08 00:05:47,220 - Model saved as 1stm model.pkl
2024-10-08 00:05:47,263 - LSTM Model - MAE: 0.04162970831818715,
MSE: 0.009068238198058645, R2 Score: 0.9131405524668116
2024-10-08 00:12:48,546 - Building LSTM model with input shape
(10, 207)
2024-10-08 00:12:48,548 - Starting training for LSTM model...
2024-10-08 00:13:32,477 - Model training complete. MAE:
0.038580160142659546, MSE: 0.008547108226241804, R2:
0.9181321572809295
2024-10-08 00:13:41,818 - LSTM Model - MAE:
0.038580160142659546, MSE: 0.008547108226241804, R2 Score:
0.9181321572809295
2024-10-08 00:29:02,822 - Building LSTM model with input shape
(10, 207)
2024-10-08 00:29:02,825 - Starting training for LSTM model...
2024-10-08 00:29:47,135 - Model training complete. MAE:
0.03764577929402395, MSE: 0.008639352365419939, R2:
0.9172486036300227
2024-10-08 00:29:55,491 - You are saving your model as an HDF5
file via `model.save()` or `keras.saving.save model(model)`.
This file format is considered legacy. We recommend using
instead the native Keras format, e.g.
`model.save('my model.keras')` or
`keras.saving.save model(model, 'my model.keras')`.
```

```
2024-10-08 00:29:55,513 - LSTM Model - MAE: 0.03764577929402395,
MSE: 0.008639352365419939, R2 Score: 0.9172486036300227
2024-10-08 00:36:10,945 - Building LSTM model with input shape
(10, 207)
2024-10-08 00:36:10,949 - Starting training for LSTM model...
2024-10-08 00:37:01,238 - Model training complete. MAE:
0.04990737844833083, MSE: 0.009961700822448462, R2:
0.9045825869335875
2024-10-08 00:37:09,241 - You are saving your model as an HDF5
file via `model.save()` or `keras.saving.save model(model)`.
This file format is considered legacy. We recommend using
instead the native Keras format, e.g.
`model.save('my model.keras')` or
`keras.saving.save model(model, 'my_model.keras')`.
2024-10-08 00:37:09,256 - LSTM Model - MAE: 0.04990737844833083,
MSE: 0.009961700822448462, R2 Score: 0.9045825869335875
2024-10-09 17:05:19,842 - Building LSTM model with input shape
(10, 207)
2024-10-09 17:05:19,856 - Starting training for LSTM model...
2024-10-09 17:06:02,946 - Model training complete. MAE:
0.039490795916400215, MSE: 0.008833261206337607, R2:
0.9153912621678724
2024-10-09 17:06:17,630 - You are saving your model as an HDF5
file via `model.save()` or `keras.saving.save model(model)`.
This file format is considered legacy. We recommend using
instead the native Keras format, e.g.
`model.save('my model.keras')` or
`keras.saving.save model(model, 'my model.keras')`.
2024-10-09 17:06:17,689 - LSTM Model - MAE:
0.039490795916400215, MSE: 0.008833261206337607, R2 Score:
0.9153912621678724
2024-10-10 15:42:42,654 - Building LSTM model with input shape
(12, 207)
2024-10-10 15:42:42,654 - Starting training for LSTM model...
```

2024-10-10 15:44:12,451 - Test metrics - MAE: 0.045836966713797916, MSE: 0.010878357989306494, R2: 0.8977708691713441

2024-10-10 15:44:37,490 - You are saving your model as an HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save model(model, 'my_model.keras')`.