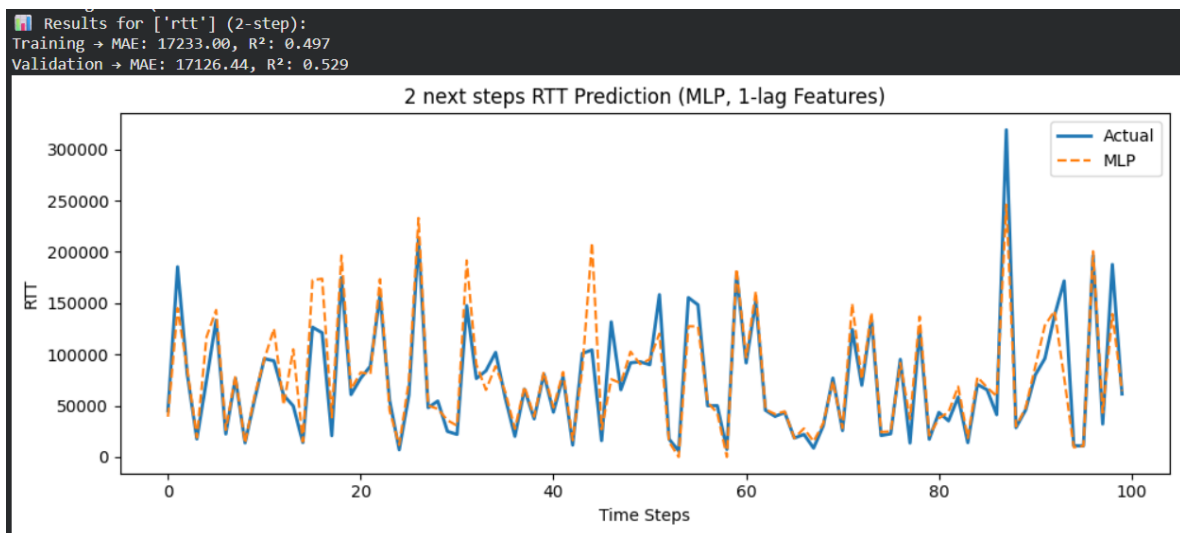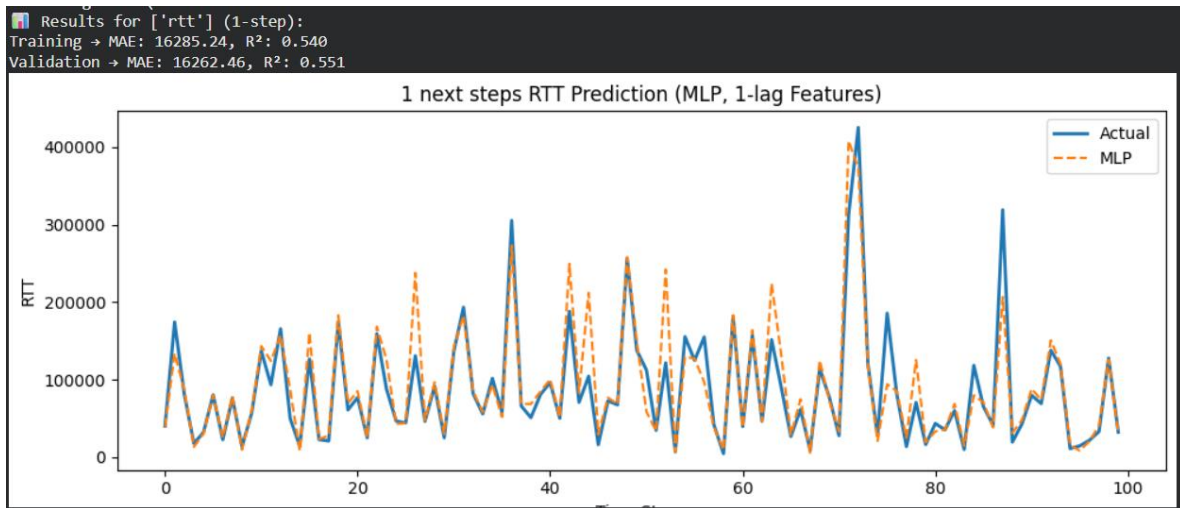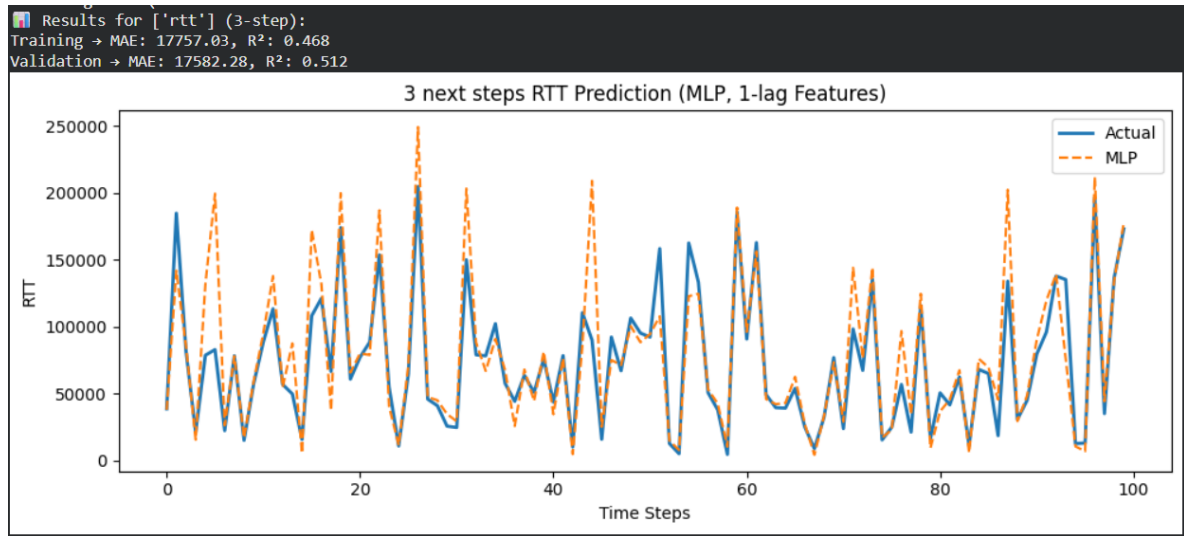# Hyperparameters

```python
mlp_model = MLPRegressor(
    hidden_layer_sizes=(128, 64, 32),
    activation='relu',
    solver='adam',
    learning_rate_init=0.0005,
    max_iter=20,
    random_state=42,
    early_stopping=True,
    validation_fraction=0.1,
    n_iter_no_change=10,
    verbose=True
)
```
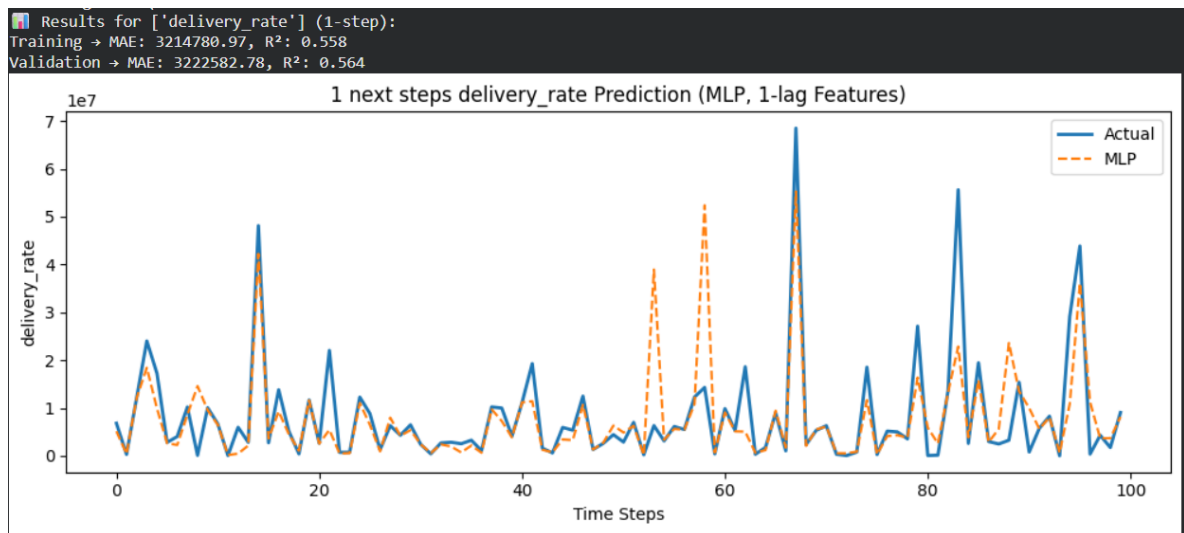
RTT prediction

```
Results for ['rtt'] (1-step):
Training → MAE: 16285.24, R²: 0.540
Validation → MAE: 16262.46, R²: 0.551
```


1 next steps RTT Prediction (MLP, 1-lag Features)

```
Results for ['rtt'] (2-step):
Training → MAE: 17233.00, R²: 0.497
Validation → MAE: 17126.44, R²: 0.529
```


2 next steps RTT Prediction (MLP, 1-lag Features)

Results for ['rtt'] (3-step):
Training → MAE: 17757.03, R²: 0.468
Validation → MAE: 17582.28, R²: 0.512
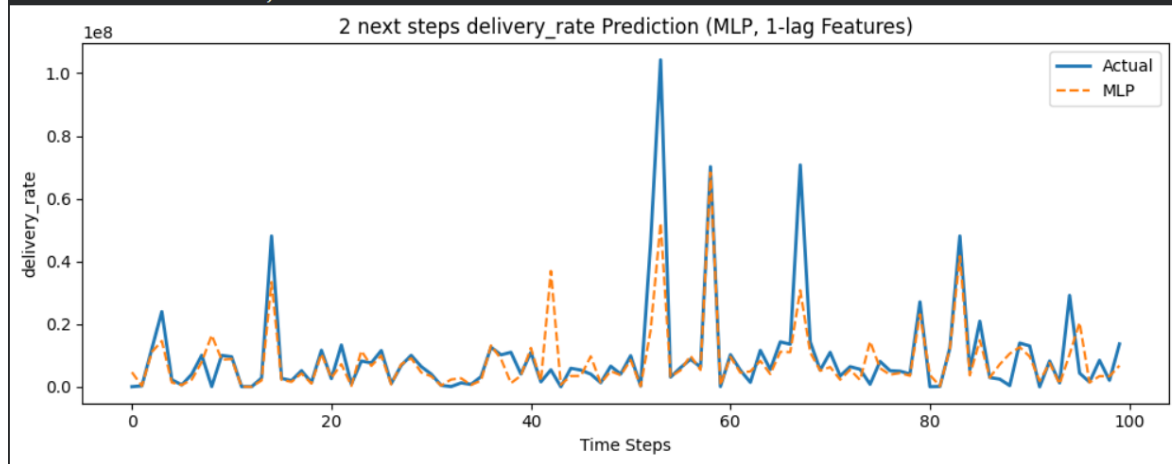
3 next steps RTT Prediction (MLP, 1-lag Features)

Delivery rate prediction

Results for ['delivery_rate'] (1-step):
Training → MAE: 3214780.97, R²: 0.558
Validation → MAE: 3222582.78, R²: 0.564

1 next steps delivery_rate Prediction (MLP, 1-lag Features)

2 next steps delivery_rate Prediction (MLP, 1-lag Features)

3 next steps delivery_rate Prediction (MLP, 1-lag Features)