1. **Model Evaluation Metrics (Predicting gaseous pollutants (NO2(GT))):**

* Mean Squared Error (MSE): 0.0863
* R² Score: 0.99999
* Mean Absolute Error (MAE): 0.0341
* Root Mean Squared Error (RMSE): 0.2938

**Inference**:

* The R² score being very close to 1.0 indicates an almost perfect fit.
* The very low error values suggest the model predicts the target variable with high accuracy.

1. **Comparison of Different Models for Predicting Sensor Outputs (PT08.S1(CO), PT08.S2(NMHC), etc.):**

* Linear Regression: MAE = 156.98, RMSE = 211.15
* Random Forest: MAE = 66.88, RMSE = 102.48
* Gradient Boosting: MAE = 87.45, RMSE = 125.02
* MLP Regressor: MAE = 105.18, RMSE = 149.87

**Inference:**

* Random Forest performed the best, achieving the lowest MAE and RMSE.
* Linear Regression had the highest error, indicating that the relationship is likely non-linear.
* Gradient Boosting and MLP Regressor performed better than Linear Regression but were outperformed by Random Forest.
* There was a warning about the MLP Regressor not converging, suggesting that tuning the model (e.g., increasing iterations, adjusting learning rate) might improve its performance.