

A box plot comparing the distribution of Train_score (blue) and Test_score (orange) for various models. The y-axis represents the score, ranging from 0.0 to 1.0. The x-axis lists the models: Baseline, Linear, Logistic, SVM, Decision Tree, Random Forest, Gradient Boosting, XGBoost, CatBoost, and Neural Network. The plot shows that for most models, the Train_score is higher than the Test_score, indicating overfitting. The Neural Network model shows a significant drop in Test_score compared to its Train_score. The Gradient Boosting and XGBoost models show the highest Test_scores, indicating better generalization performance.

Model	Score Type	Min	Q1	Median	Q3	Max
Baseline	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Linear	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Logistic	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
SVM	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Decision Tree	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Random Forest	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Gradient Boosting	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
XGBoost	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
CatBoost	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99
Neural Network	Train_score	0.98	0.99	1.00	1.00	1.00
	Test_score	0.95	0.96	0.97	0.98	0.99

Predictor left out