

Regression Model Results

Sainath

June 4,
2025

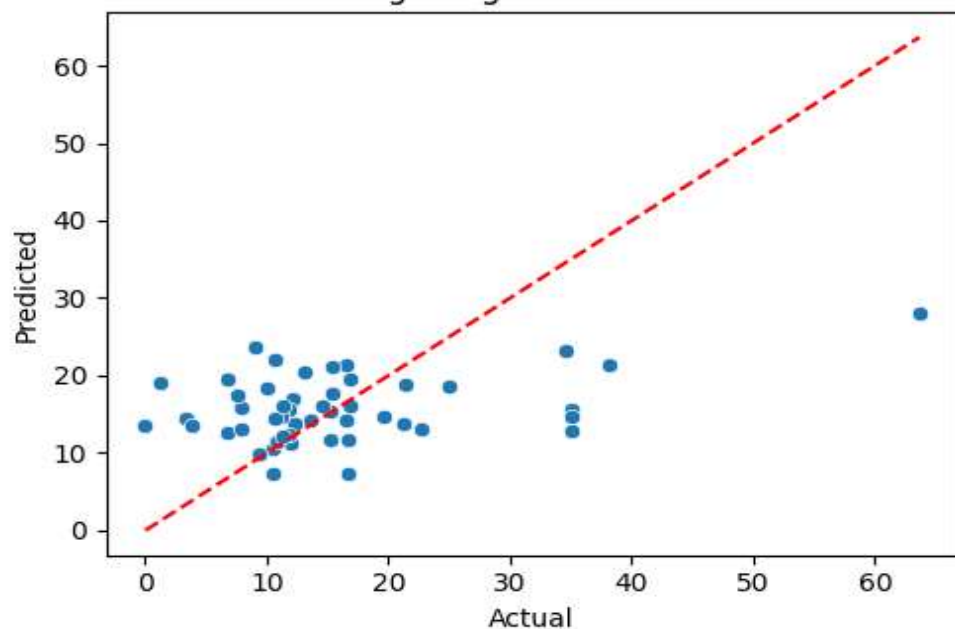
Low_cin_combined Results - Regression Models

Model	Train R ²	Test R ²	Train MSE	Test MSE
Ridge Regression	0.1527	-2.4809	101.7097	95.7018
Lasso Regression	0.1511	-2.2133	101.9043	88.3462
Random Forest	0.8621	-4.0147	16.5584	137.8725
Support Vector	-0.0392	0.1046	124.7549	24.6178

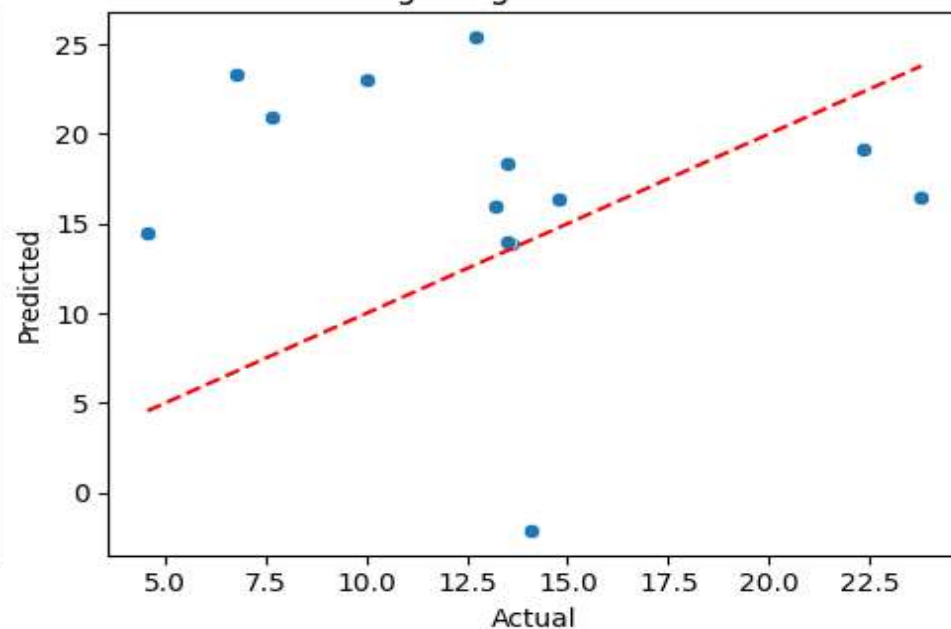
High_cin_combined Results - Regression Models

Model	Train R ²	Test R ²	Train MSE	Test MSE
Random Forest	0.8294	-0.3623	18.3394	129.7479
XGBoost Regressor	1.0000	-1.3537	0.0000	224.1666
Ridge Regression	0.7455	-1.0004	27.3616	190.5146

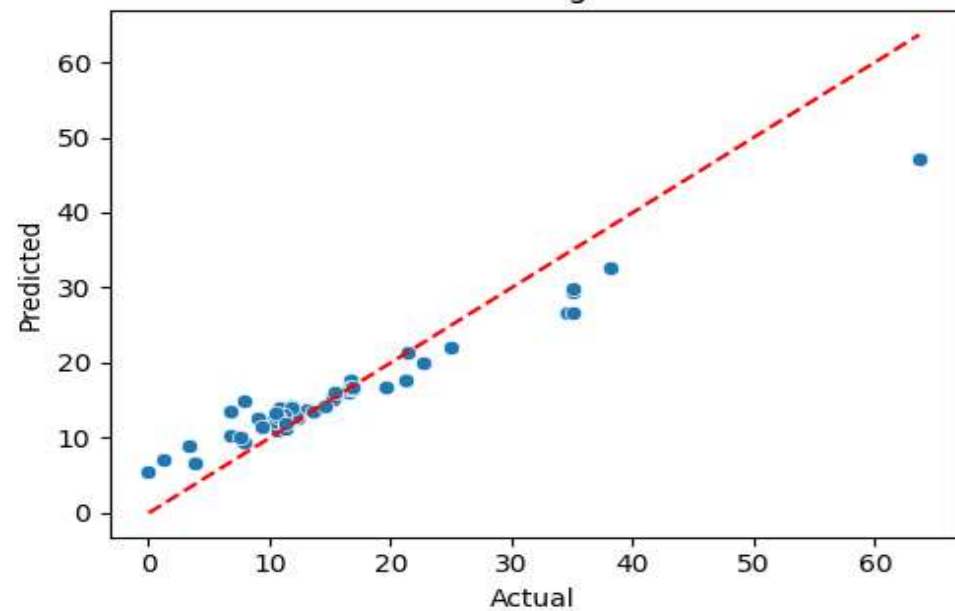
Ridge Regression - Train



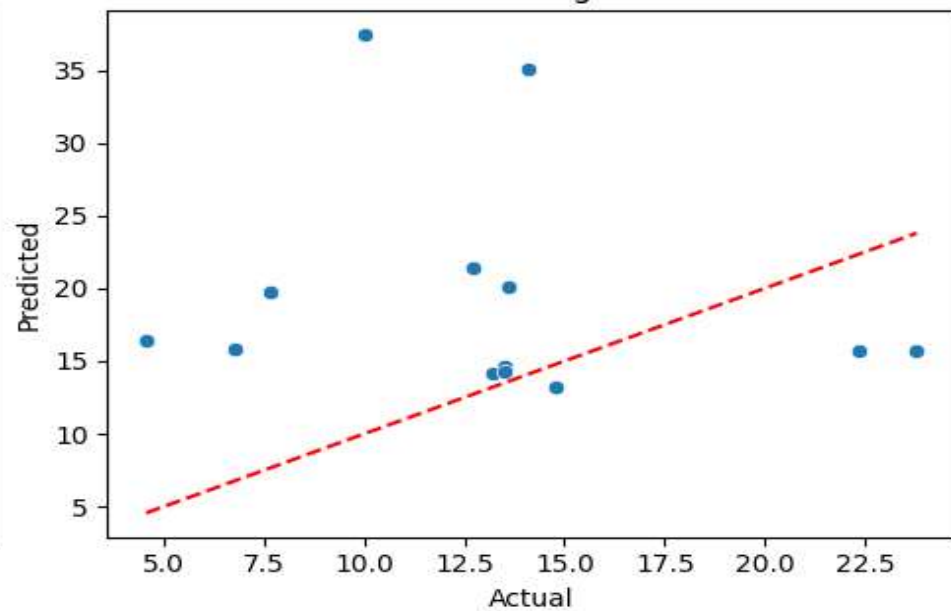
Ridge Regression - Test



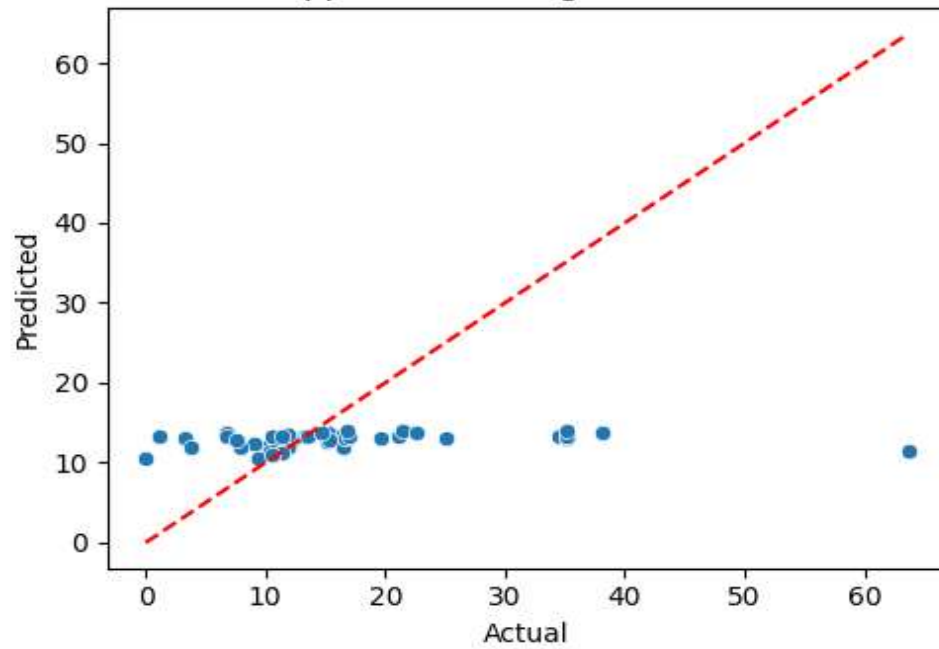
Random Forest Regressor - Train



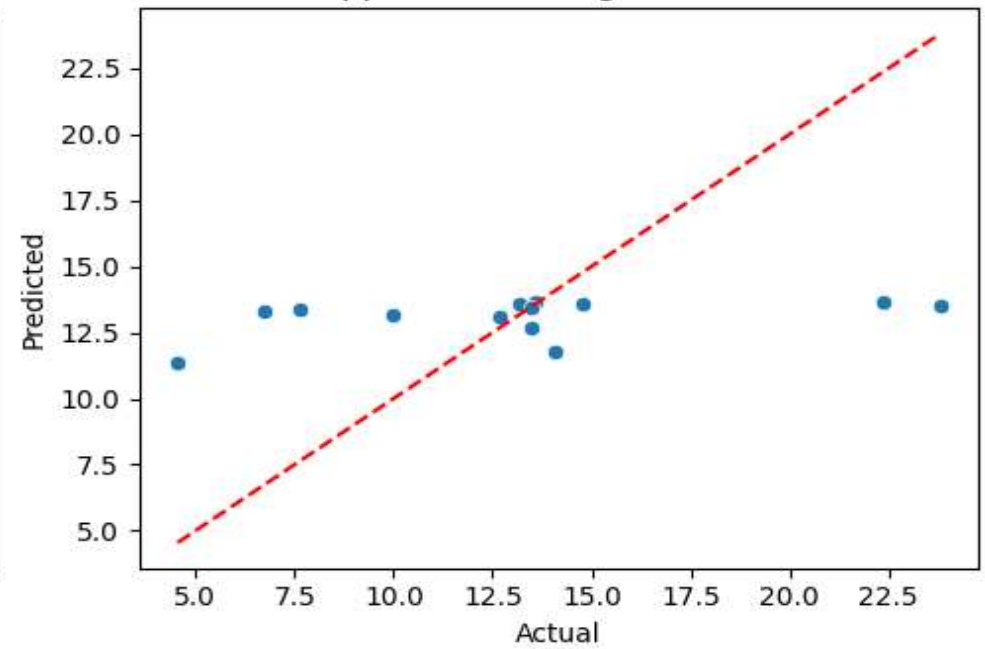
Random Forest Regressor - Test



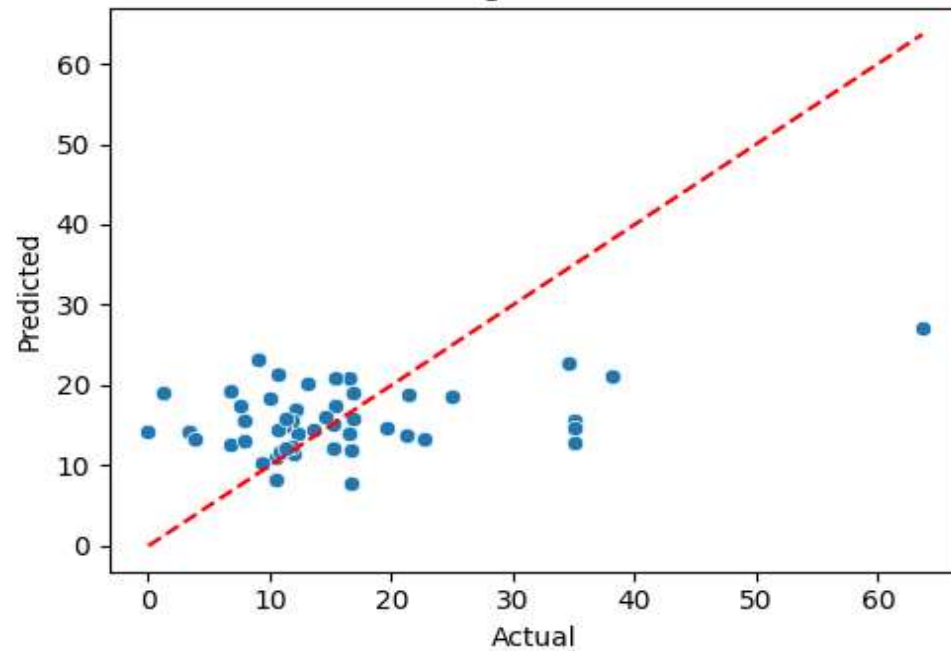
Support Vector Regressor - Train



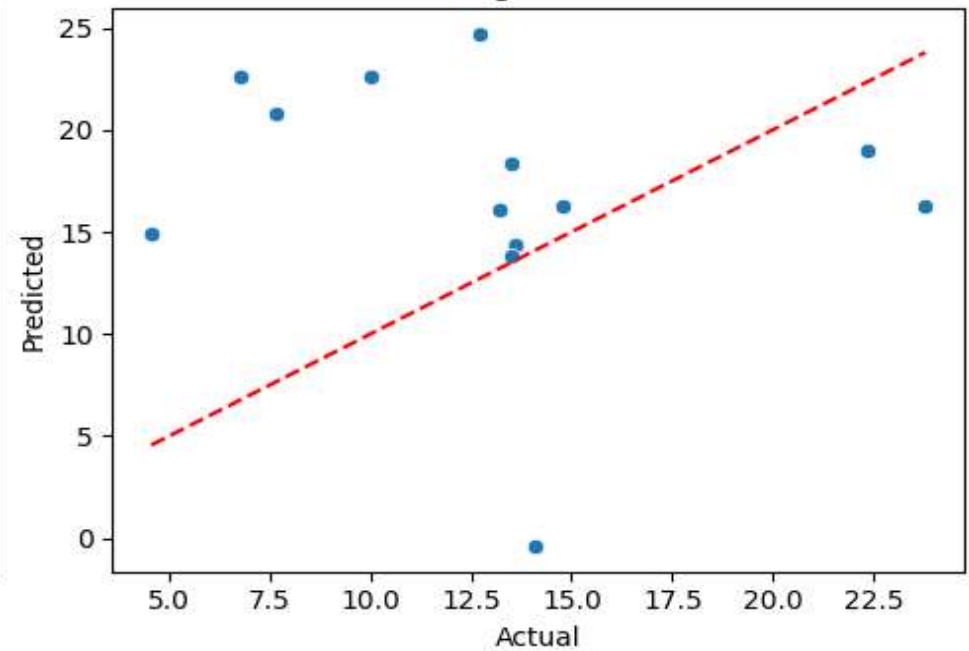
Support Vector Regressor - Test



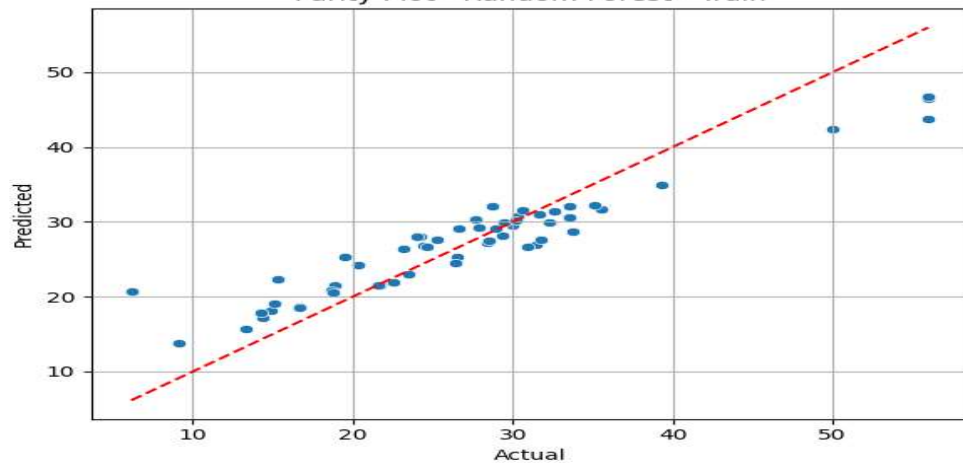
Lasso Regression - Train



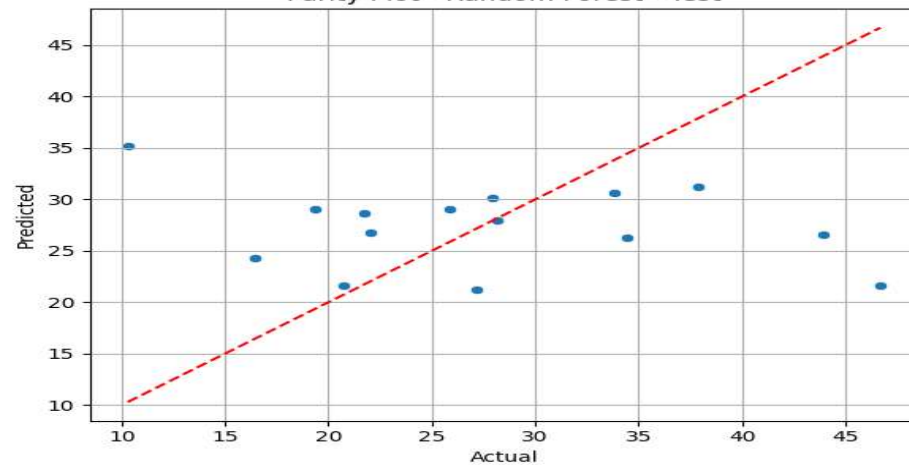
Lasso Regression - Test



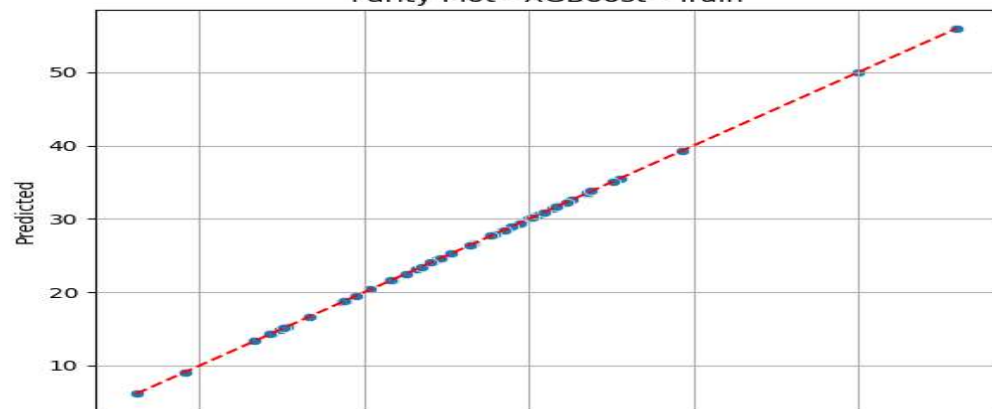
Parity Plot - Random Forest - Train



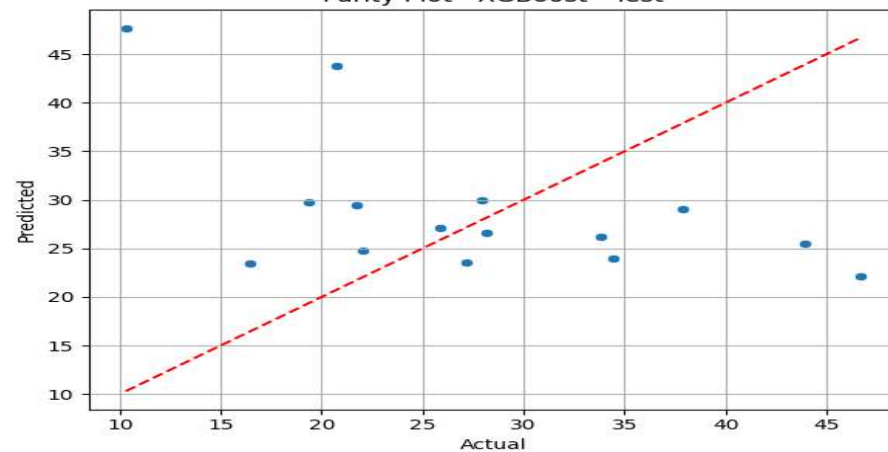
Parity Plot - Random Forest - Test



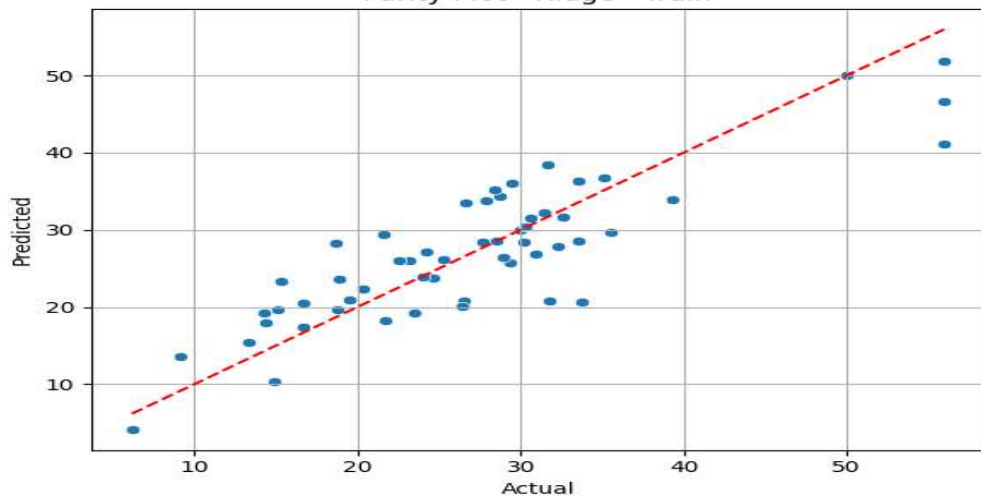
Parity Plot - XGBoost - Train



Parity Plot - XGBoost - Test



Parity Plot - Ridge - Train



Parity Plot - Ridge - Test

