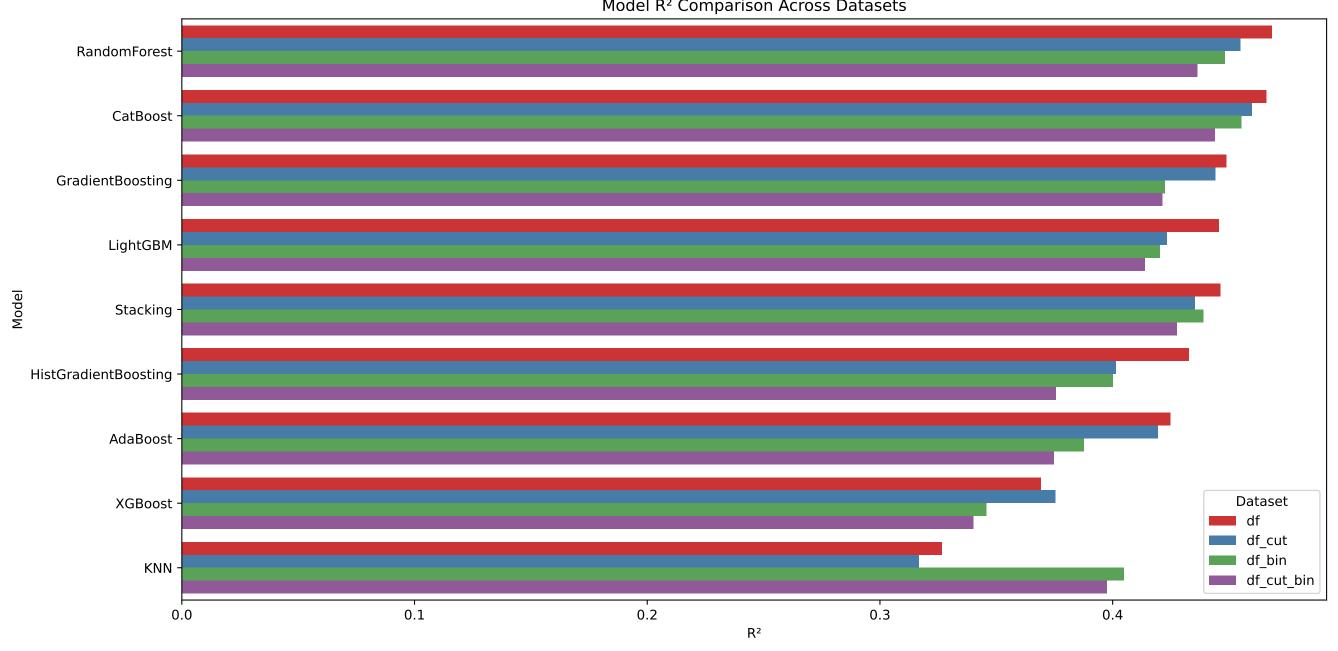
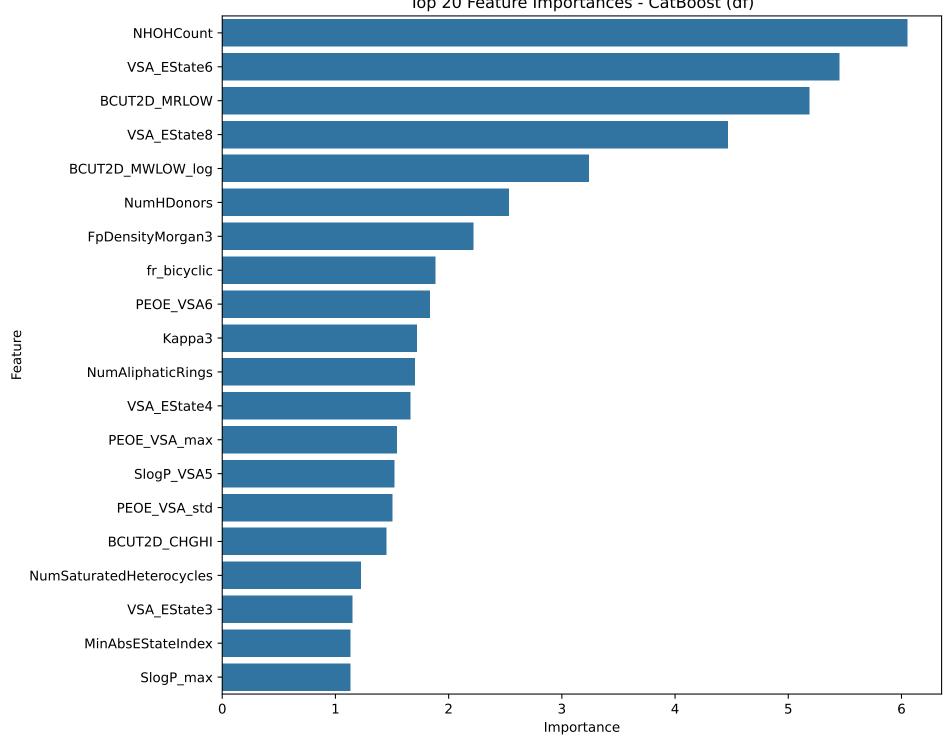
Model RMSE Comparison Across Datasets Dataset RandomForest df df_cut df_bin df_cut_bin CatBoost -GradientBoosting -LightGBM -Model Stacking -HistGradientBoosting AdaBoost -XGBoost -KNN -0.5 0.6 0.2 0.3 0.4 0.8 0.1 0.7 0.0

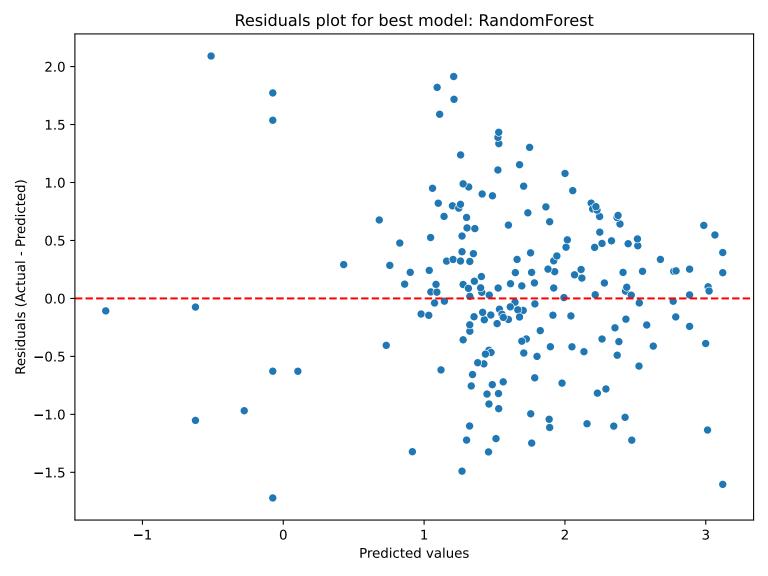
RMSE

Model R² Comparison Across Datasets



Top 20 Feature Importances - CatBoost (df)





Model metrics comparison

	MAE_df	MAE_df_bin	MAE_df_cut	MAE_df_cut_bin	RMSE_df	RMSE_df_bin	RMSE_df_cut	RMSE_df_cut_bir	R²_df	R ² _df_bin	R ² _df_cut	R ² _df_cut_bin
	0.5885	0.5856	0.5855	0.593	0.7085	0.7028	0.7113	0.7101	0.4247	0.3877	0.4194	0.3748
	0.5342	0.5228	0.54	0.5277	0.6819	0.6619	0.686	0.6684	0.4661	0.4552	0.4598	0.444
ting	0.5442	0.5411	0.5509	0.5451	0.6925	0.6819	0.6967	0.6827	0.4488	0.4224	0.4443	0.4213
Boosting	0.5311	0.5258	0.5505	0.5424	0.7018	0.6932	0.721	0.7077	0.4328	0.4001	0.4014	0.3757
	0.5916	0.54	0.5963	0.5405	0.7664	0.6902	0.7735	0.6939	0.3267	0.4048	0.3168	0.3976
	0.5351	0.5292	0.5465	0.5346	0.6938	0.6823	0.7086	0.6866	0.4458	0.4203	0.4233	0.4138
t	0.5283	0.5206	0.533	0.5247	0.6797	0.6657	0.689	0.6732	0.4685	0.4482	0.4549	0.4365
	0.5455	0.5334	0.5506	0.5428	0.6949	0.6722	0.7018	0.6791	0.4462	0.439	0.4354	0.4276
	0.5602	0.5485	0.5548	0.5515	0.7383	0.7225	0.7342	0.7261	0.3692	0.3458	0.3754	0.3401