

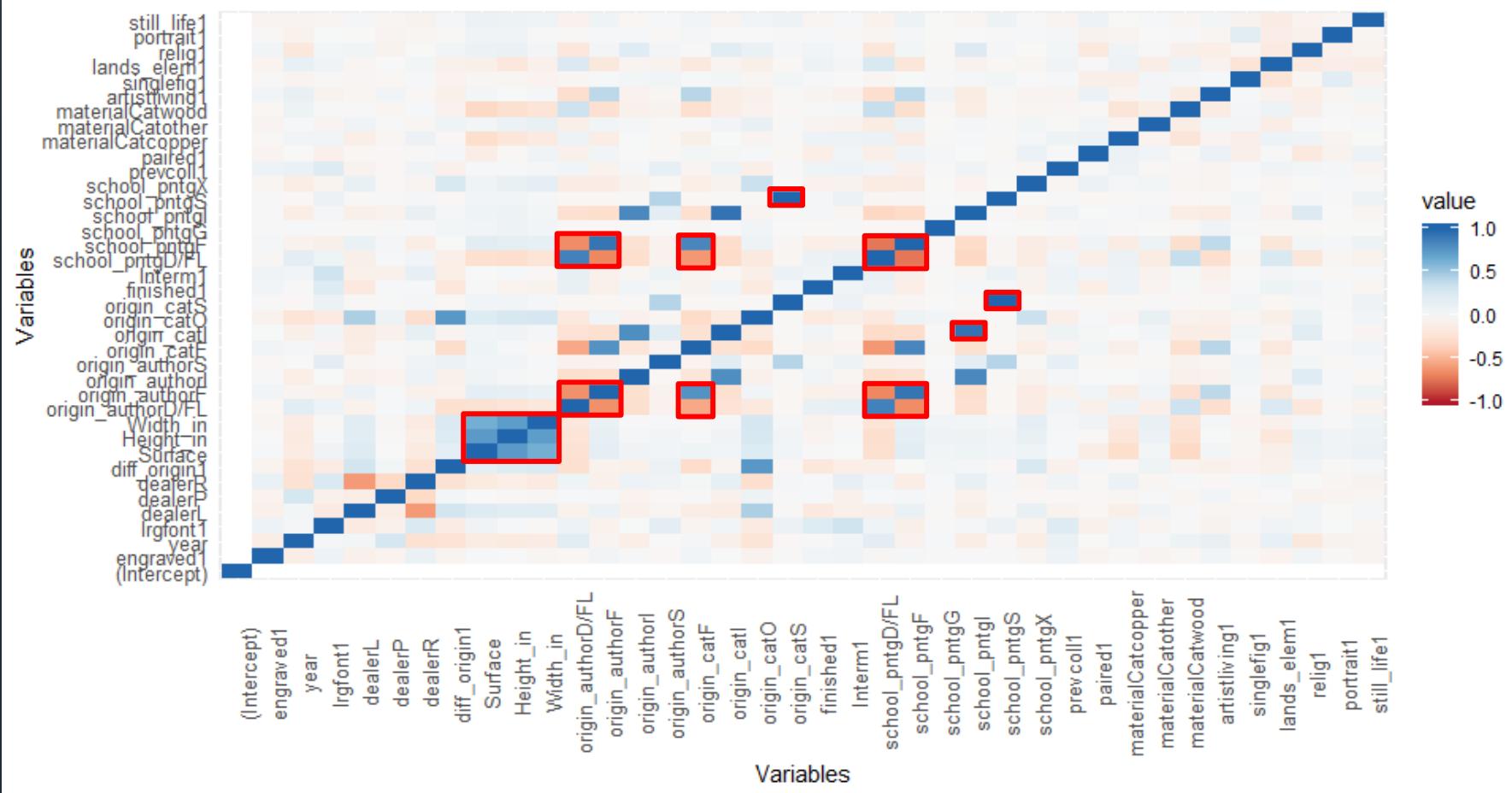
Final project – Paintings in Paris

Rtists

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Most Interesting Graphic



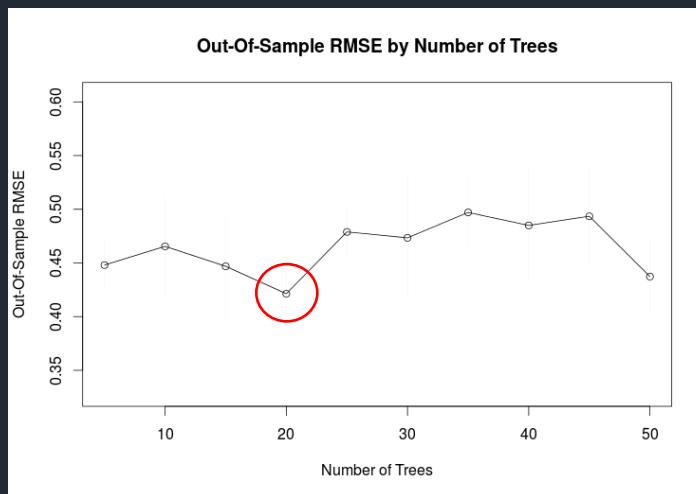
Correlation Plot: The darker regions indicates closer correlation between predictors

Best Model

01. Motivation

Model	Bias	Coverage	Maximum Deviation	Mean Absolute Deviation	RMSE
BART 	197.946	0.964	12708.830	440.461	1219.663
OLS	206.970	0.947	13774.245	472.354	1252.426
BMA	218.631	0.945	13871.023	474.235	1263.940
Random Forest	335.079	0.899	15610.293	449.551	1323.228
GAM	130.507	0.237	26822.439	534.276	1772.144

02. How to find



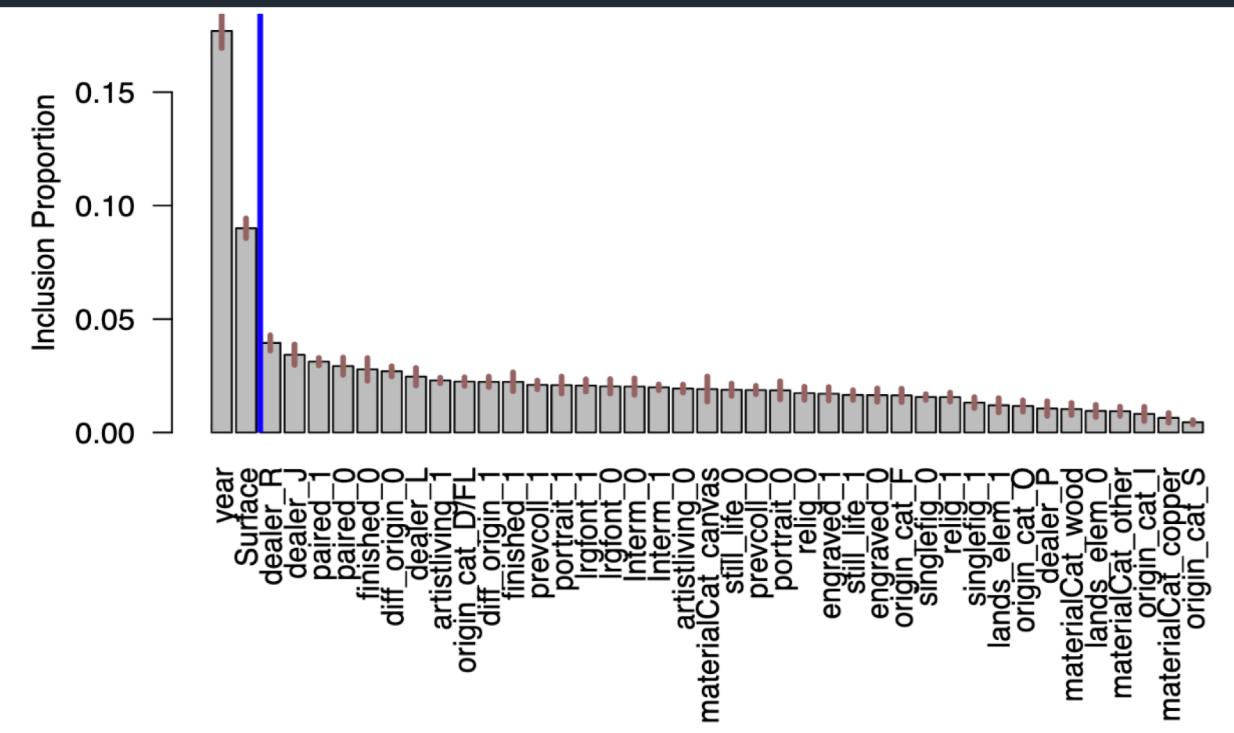
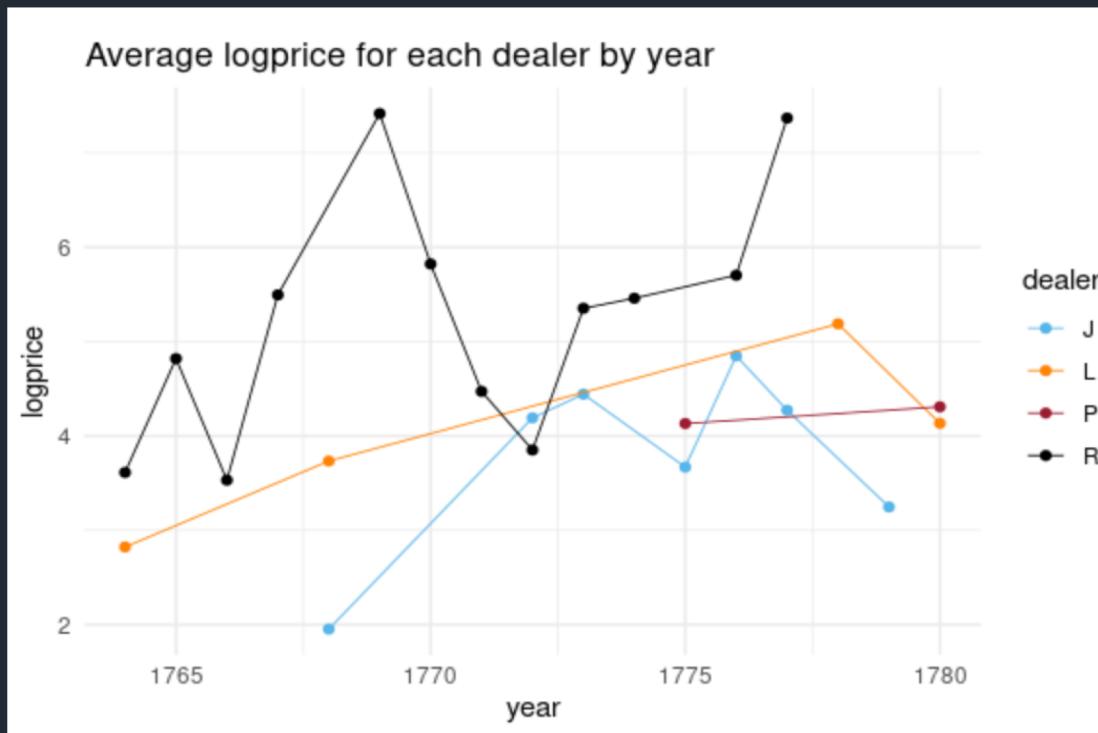
03. The reason why

- Predictive performance
- Bayesian uncertainty quantification
- Avoid overfitting

Best Insight

01. Missing Value Imputation

02. Best Variables: year, dealer



Best Paintings to Buy



#1 painting
Author : Joseph Vernet
Subject: Musketeers / Night Watch
Predicted Price: \$21221.01



#2 painting
Author : Salvator Rosa
Subject: Landscape with Tobias & the Angel
Predicted Price: \$18024.81

#3 painting
Author : Rembrandt Van Rhyn
Subject: Adoration of the Kings Rubens , Peter Paul
Predicted Price: \$16977.72



Thank you.