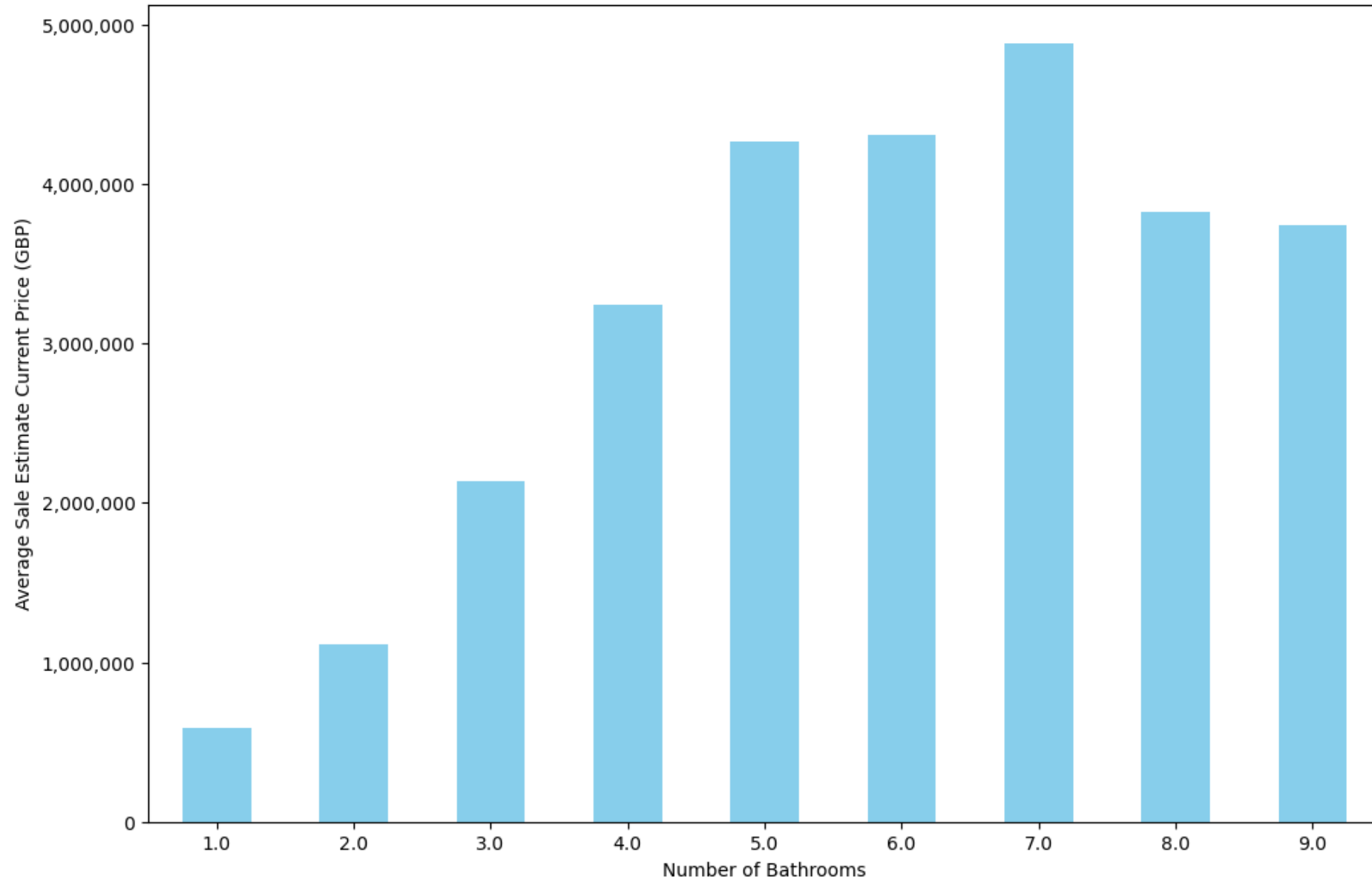


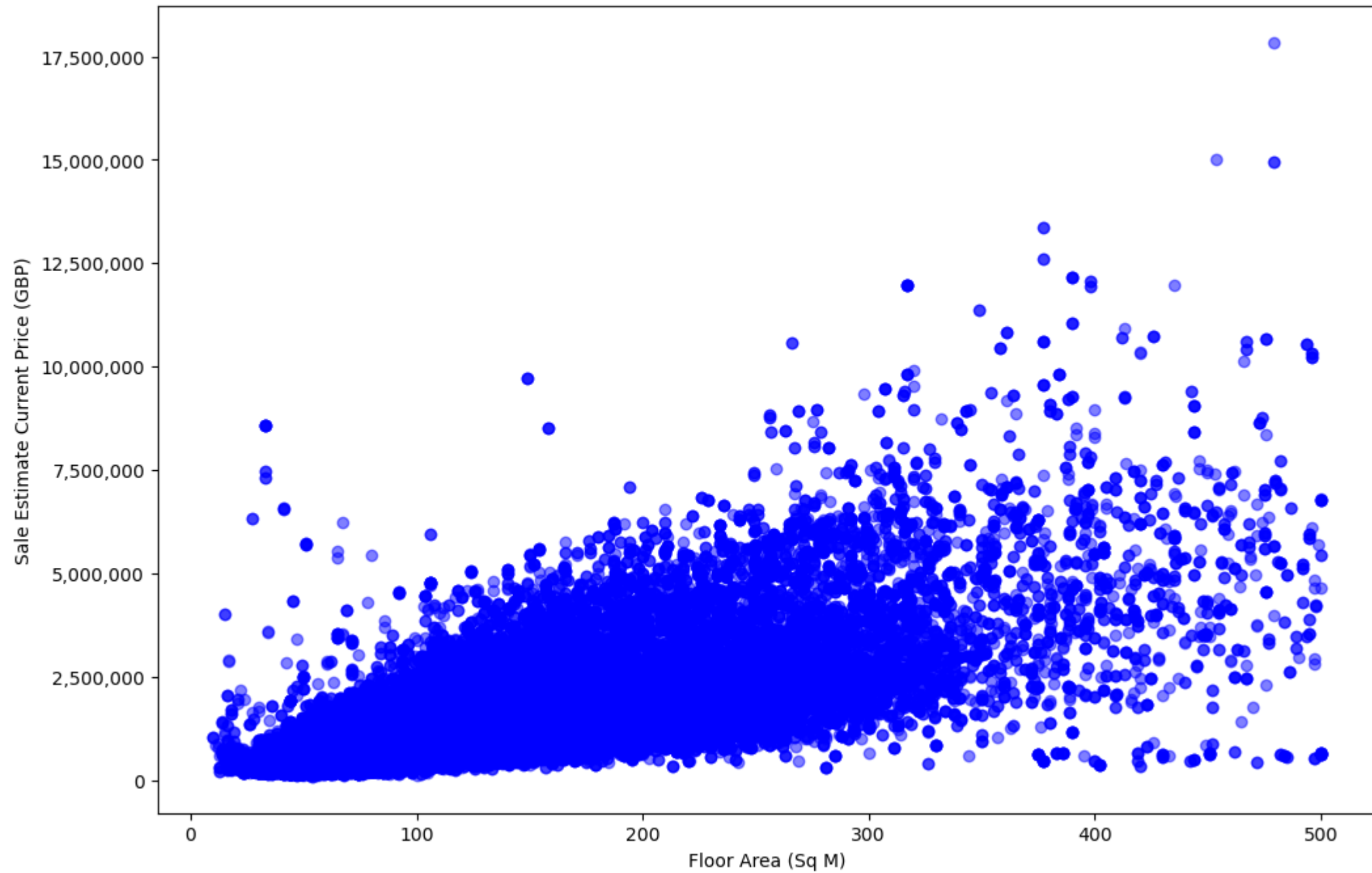
House Price Prediction

Sanjay Raju

Average Sale Estimate Current Price by Number of Bathrooms



Sale Estimate Current Price vs. Floor Area



Understanding Data



Target is
continuous

Linear
relationships
between features
and target

Potential cause
and effect
present

Linear Regression Model - Baseline



DIRECTLY MODELS PRICE
RELATIONS



QUICK INSIGHTS WITH
MINIMAL COMPUTATION

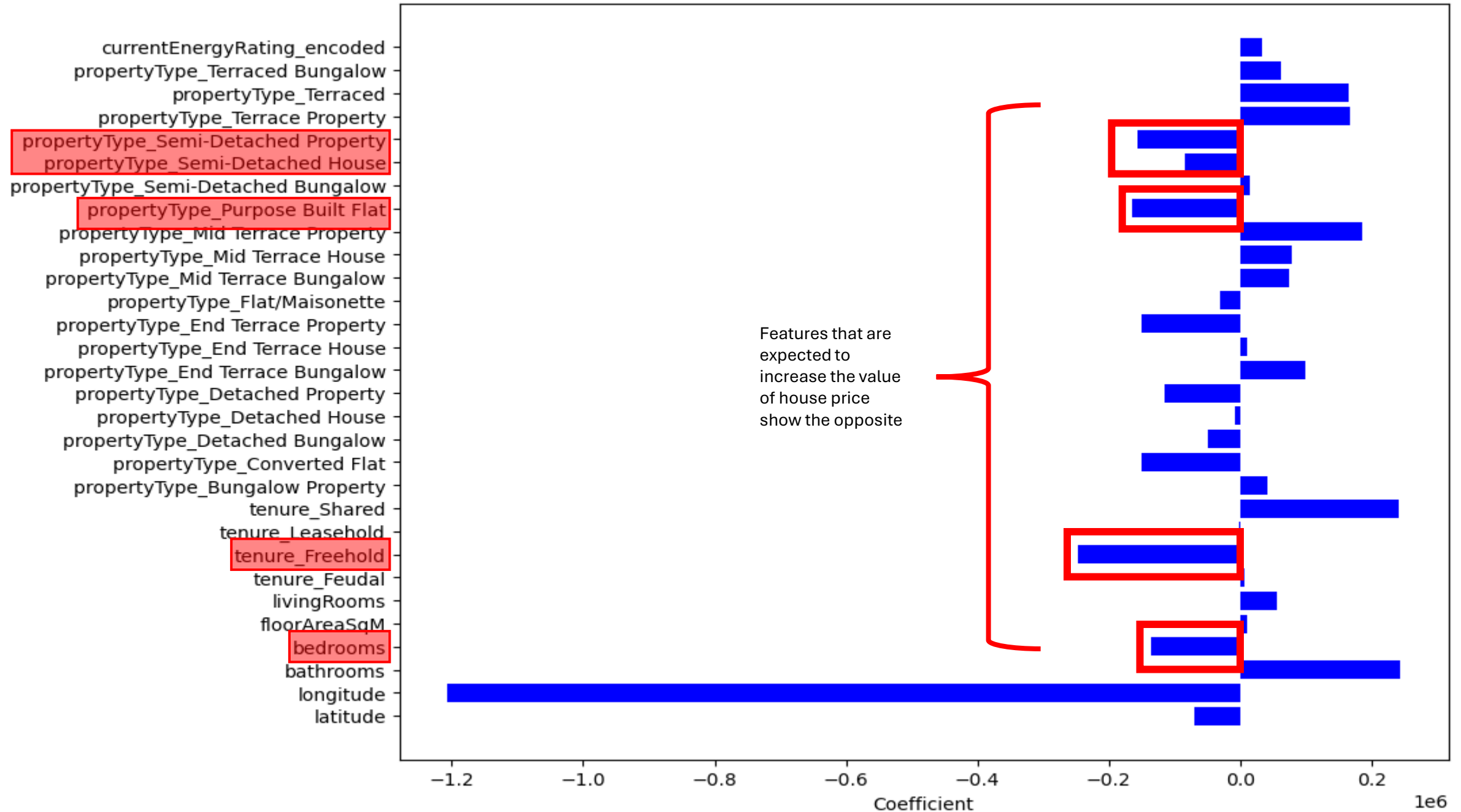


BASELINE FOR COMPLEXITY
JUSTIFICATION

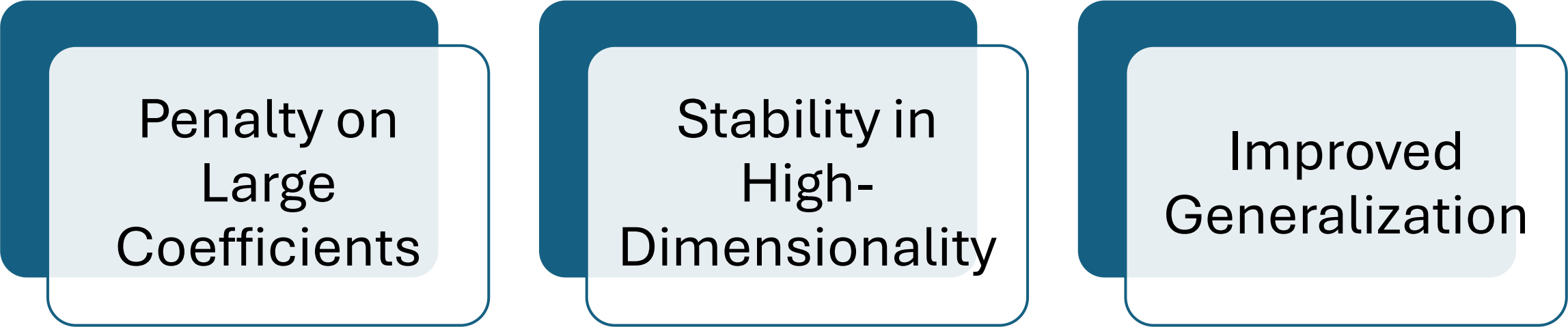
R² value achieved = 0.6351

Coefficient Values by Feature

Feature



Ridge Regression Model

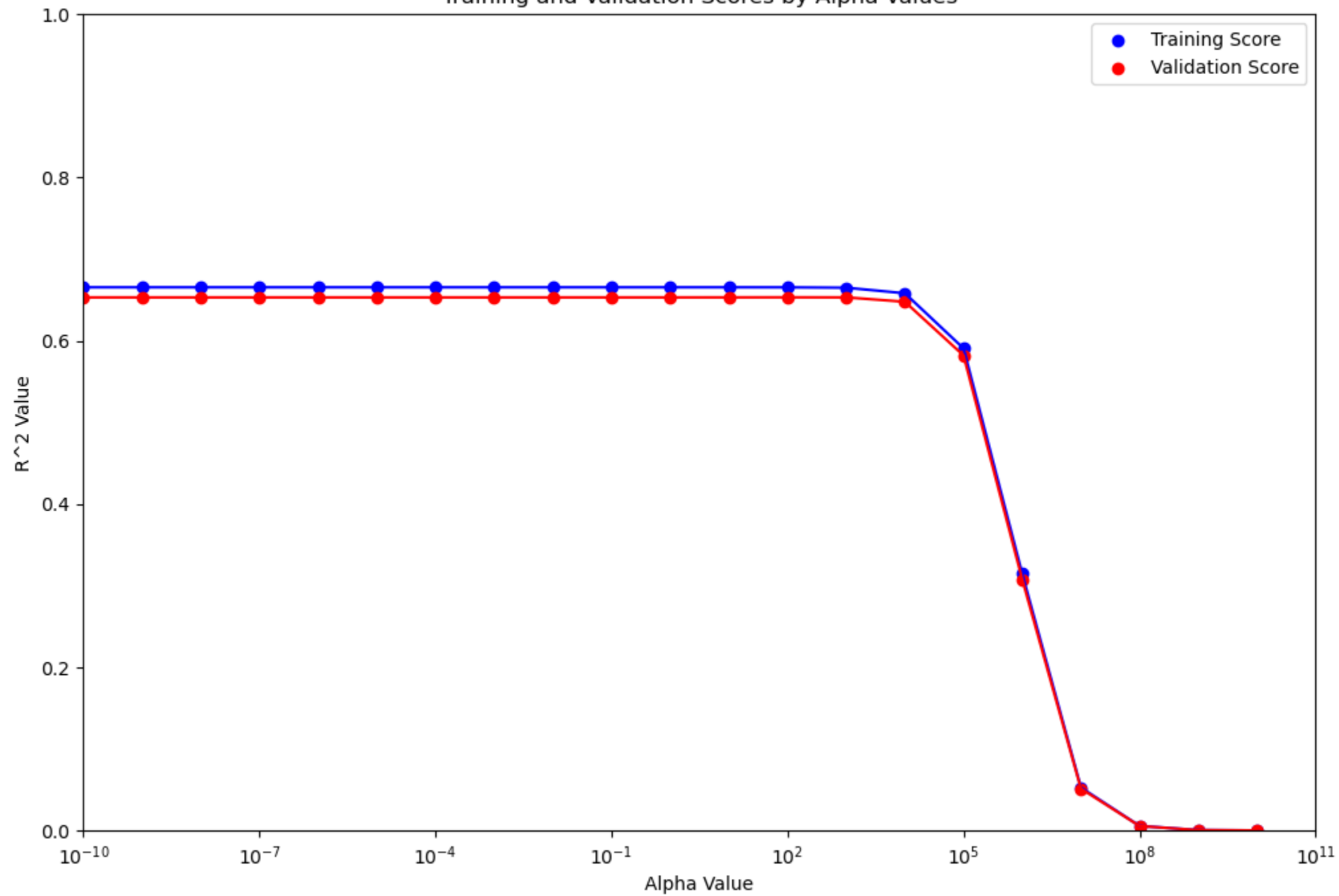


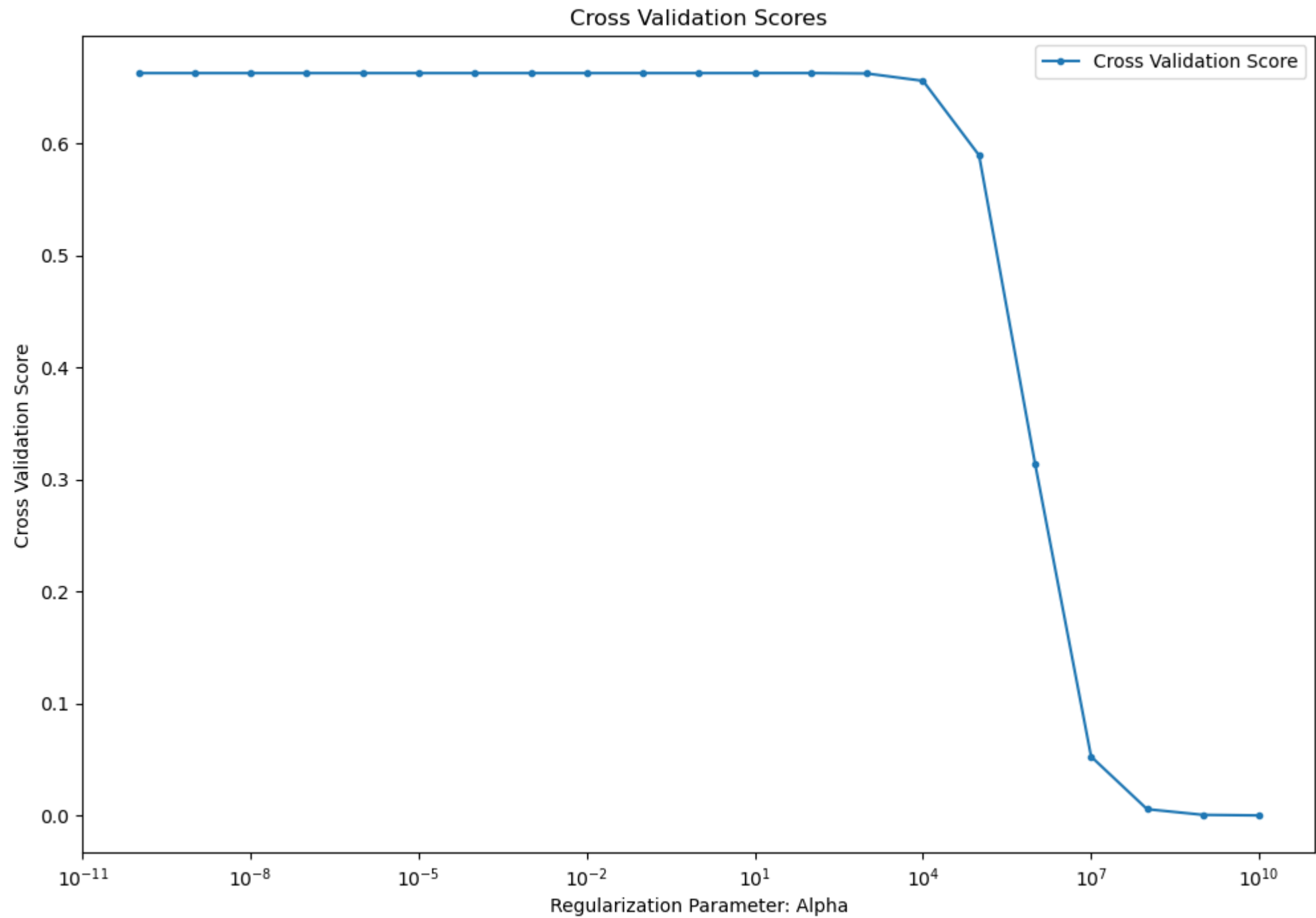
Penalty on
Large
Coefficients

Stability in
High-
Dimensionality

Improved
Generalization

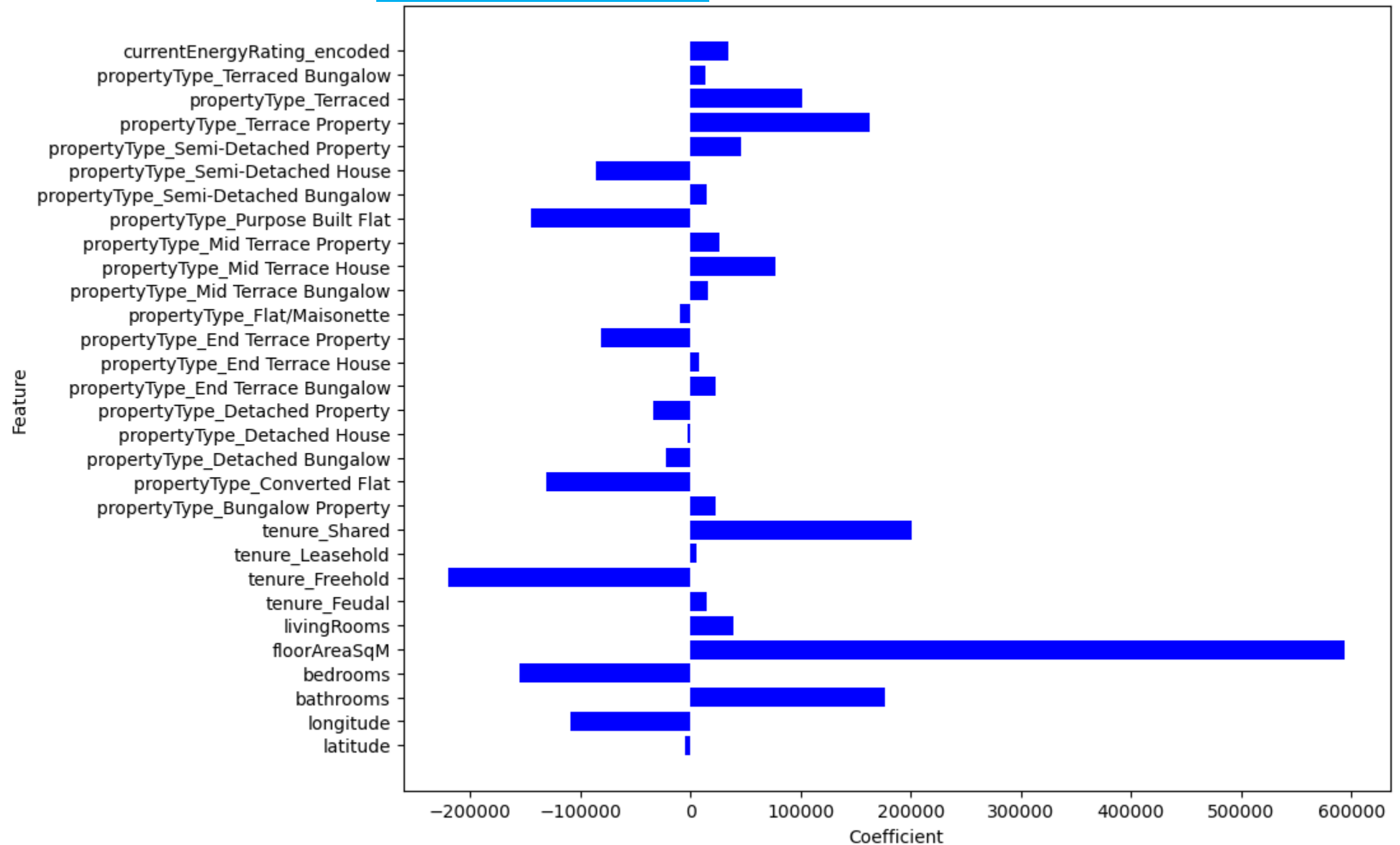
Training and Validation Scores by Alpha Values





R² value achieved = 0.6505

Coefficient Values by Feature



Decision Tree

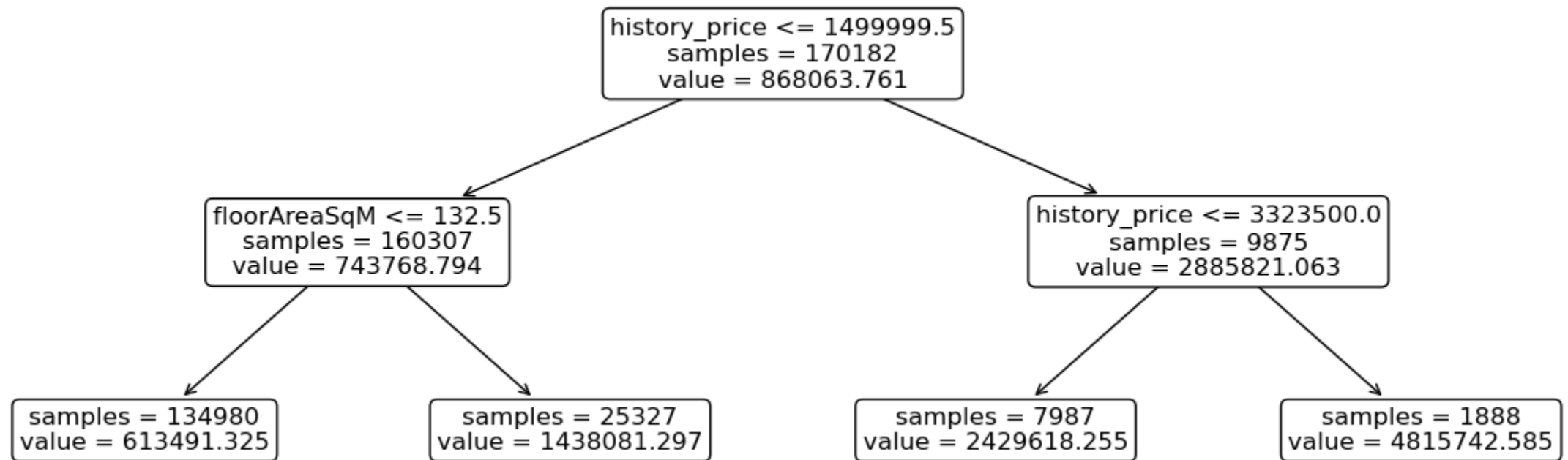


Non-Reliance on
Coefficients

Inherent Feature
Selection

Improved
Handling of
Complex Data
Structures

R^2 Value achieved = 0.606



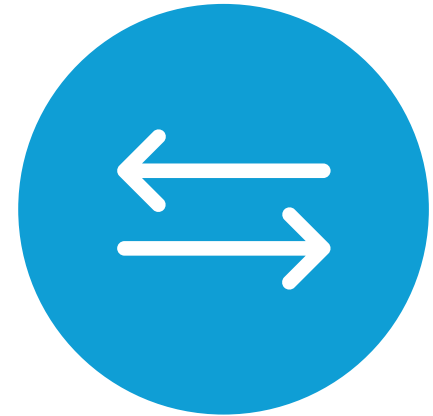
Next Steps



INVESTIGATE MULTI-
COLLINEARITY



EVALUATE WHICH FEATURES
PROVIDE THE BEST INSIGHT



CONTINUE IMPLEMENTATION
OF NON-LINEAR MODELS