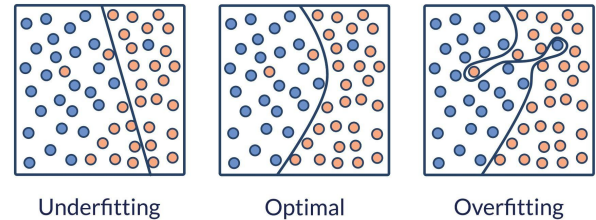
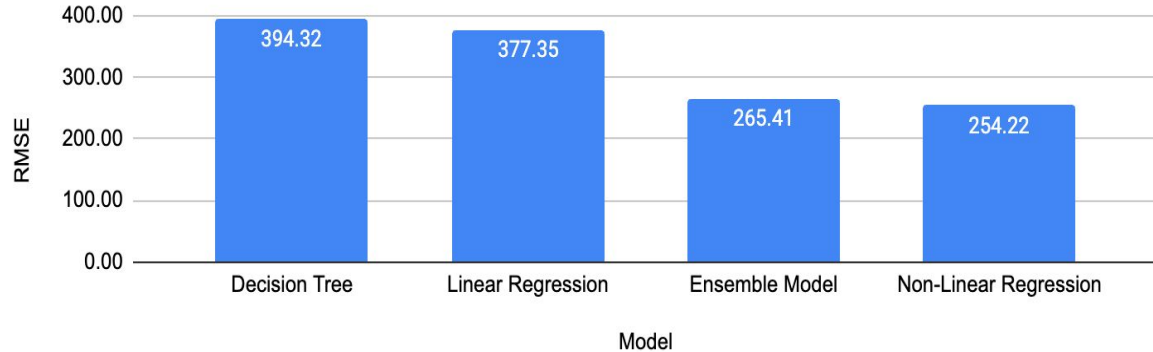


PAC Project

Objective	Data Pre-Processing	Methodology/ Results
<ul style="list-style-type: none">Develop a model to estimate monthly credit card spending (<i>monthly_spend</i>).Metric: Minimize prediction error using Root Mean Squared Error (RMSE).Features: Customer attributes (demographics, credit, transaction, lifestyle).	<ul style="list-style-type: none">Missing Data: Null values were imputed by replacing them with zero (0).Categorical Features: Converted into numerical dummy variables (29 total features).Feature Selection to select a subset of 26 most important features	<ul style="list-style-type: none">Linear Regression with Polynomial Features<ul style="list-style-type: none">Best Score: RMSE 254.2222Ensemble Model (Voting Regressor)<ul style="list-style-type: none">RMSE 265.4063Decision Tree<ul style="list-style-type: none">max_depth=20Overfitted: RMSE 67.38599Actual Score: 394.32

RMSE Scores By Model Type



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