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12/04/2024

CIS 390 – Supervised ML

**Business Use Case: Visualizations**

For this portion of the project, we will display two of the seven visualizations created during the modeling process. These visualizations convey key insights effectively and make the data easier to understand.

1. **Feature Importance**

A graph of blue bars

Description automatically generated

***Why?***

* Highlights which features have the greatest impact on predicting motorcycle resale prices.
* Critical for understanding decision-making factors, especially for strategic pricing or inventory management.

***Interpretation***

* Top features, such as **brand** and **year**, dominate the resale price prediction.
* Helps client to prioritize these factors when pricing or assessing motorcycles for resale.

1. **Actual vs. Predicted Resale prices**

A graph with blue dots and a red line

Description automatically generated

***Why?***

* Visually demonstrates model’s performance.
* Shows how closely the predicted prices align with actual resale values.
* Reassures stakeholders about the model’s reliability.

***Interpretation***

* Clustering of points along the diagonal line indicates the model’s high accuracy.
* Deviations are minimal, especially for mid-range resale prices.
* Confirms model’s practical utility.