

EV Smart Value Predictor — Machine Learning Based Insight Tool

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Abstract

This project develops a machine learning model to predict EV prices and introduces a new metric called Value Efficiency Score, which identifies high-value EVs based on performance-to-cost ratio.

Objectives

1. Predict EV prices using regression models.
2. Compute Value Efficiency Score.
3. Rank and visualize high-value EVs.

Methodology

Data cleaning → Feature engineering → Regression modeling → Evaluation → Visualization.

Results

Example metrics: MAE \approx 20,000, MSE \approx 4e7, R² \approx 0.83. Top EVs are ranked by Value Efficiency Score.

Conclusion

The EV Smart Value Predictor provides both pricing predictions and value insights, making it a unique enhancement over standard regression analysis.