

SHAP+WIT Explainability Demo

Upload a dataset, train an XGBoost model, and explore feature attributions using SHAP.

SHAP (SHapley Additive exPlanations) is a method to explain the output of machine learning models. It provides a way to understand the importance of individual fea and locally, by computing how each feature contributes to the prediction.

Upload a CSV dataset



Drag and drop file here

Limit 200MB per file • CSV



classification_data.csv 41.0KB

📊 Uploaded Data

	price	resid_area	air_qual	room_num	age	teachers	poor_prop	n_hos_beds	n_hot_rooms	rainfall	parks	Sold	avg_dist	airport_YES	waterbody_
	24	32.31	0.538	6.575	65.2	24.7	4.98	5.48	11.192	23	0.0493	0	4.0875	1	
	21.6	37.07	0.469	6.421	78.9	22.2	9.14	7.332	12.1728	42	0.0461	1	4.9675	0	
2	34.7	37.07	0.469	7.185	61.1	22.2	4.03	7.394	46.1986	38	0.0458	0	4.9675	0	
	33.4	32.18	0.458	6.998	45.8	21.3	2.94	9.268	11.2672	45	0.0472	0	6.065	1	
	36.2	32.18	0.458	7.147	54.2	21.3	5.33	8.824	11.2896	55	0.0395	0	6.0625	0	

o Select target variable (label)

airport_YES

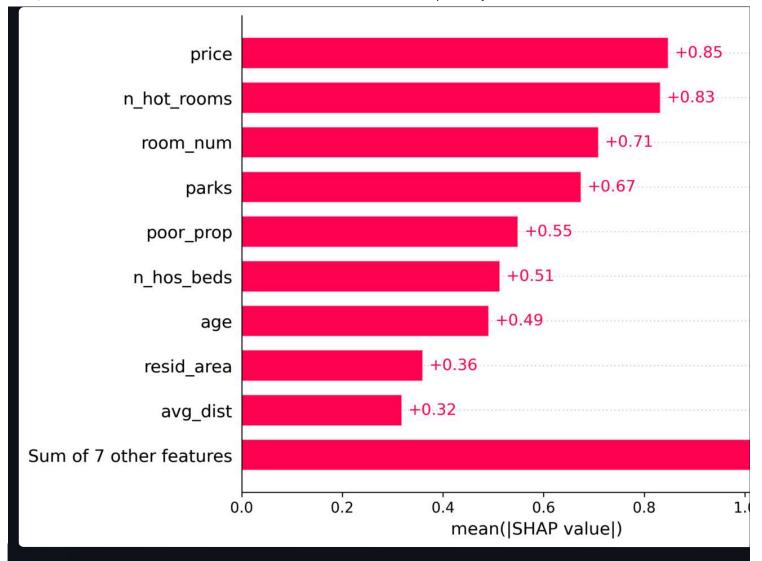
Model trained successfully.



Global Feature Importance

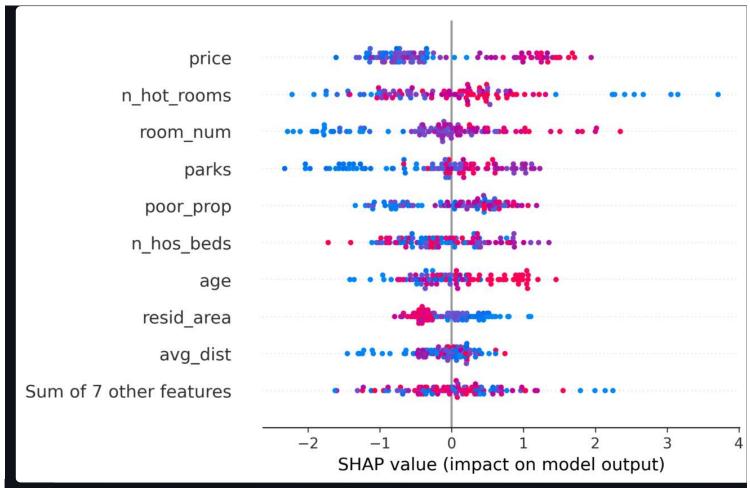
Global Feature Importance shows which features are most important across all predictions. A higher impact means the feature has a greater influence on the model's samples.

localhost:8501



SHAP Beeswarm Plot (Feature Impact Across All Samples)

Beeswarm Plot visualizes how features affect the predictions across all samples in the dataset. Each point in the plot represents a SHAP value for a feature and samplindicates whether the feature's value is high or low, and the width of the plot reflects the density of SHAP values.



Solution Explain a Specific Prediction

Select Row Index



Prediction Breakdown for this sample:

Explanation for Prediction Breakdown:

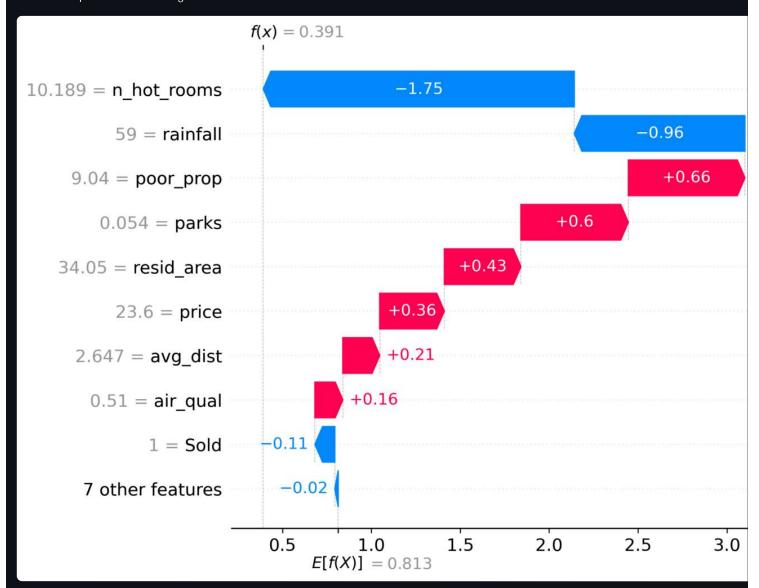
Predicted Class: 1

Feature Contributions (How each feature influenced the prediction):

- price contributed positively with a SHAP value of 0.36
- resid_area contributed positively with a SHAP value of 0.43
- air_qual contributed positively with a SHAP value of 0.16
- room_num contributed positively with a SHAP value of 0.08
- age contributed negatively with a SHAP value of -0.09
- teachers contributed negatively with a SHAP value of -0.11
- poor_prop contributed positively with a SHAP value of 0.66
- n_hos_beds contributed positively with a SHAP value of 0.02
- n_hot_rooms contributed negatively with a SHAP value of -1.75
- rainfall contributed negatively with a SHAP value of -0.96
- parks contributed positively with a SHAP value of 0.60
- Sold contributed negatively with a SHAP value of -0.11
- avg_dist contributed positively with a SHAP value of 0.21

- waterbody_Lake contributed positively with a SHAP value of 0.00
- waterbody_Lake and River contributed positively with a SHAP value of 0.08
- waterbody_River contributed negatively with a SHAP value of -0.01

Waterfall Plot: This plot helps visualize how each feature contributes to the specific prediction. Positive contributions push the prediction towards the positive class, contributions push it towards the negative class.



Model Prediction

Predicted class: 1