

Model Explainers in PySpark

What is a model explainer?

What do we do with the info a model explainer gives us?

SHAP

SHAP is one of the best model explainers for Python (and really, most ML is done in Python).

SHAP (SHapley Additive exPlanations) is a game theoretic approach to explain the output of any machine learning model. It connects optimal credit allocation with local explanations using the classic Shapley values from game theory and their related extensions. (Shapley values are a solution concept in cooperative game theory).

SHAP Values are used in the SHAP model explainer to show how each feature and value correlate the model output.

SHAP has the ability to show the same model summaries that the built in feature importance functions can show. However, the real power of model explainers comes in with the ability to show each individual observation.

We'll discuss this more as we get into some sample code.

DALEX

Let's look at the example code in Databricks

The link can be [here](#).

Alternatively, you can find the link to the code in our GitHub template or in
Databrick>Worspace>Shared>Team Presentations>Model Explainers

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