“Global Settings Overview” Module Transcript

Chapter 1

Introduction to Module Series

Hey there. My name is Hayley, and I'm part of the One AI team here at One Model. In previous modules, we discussed model performance and refinement, highlighting the importance of adjusting global settings based on insights from the EDA report and Results Summary. These adjustments help determine which input features are automatically dropped, fine-tune preprocessing techniques, and share model insights through storyboards.

In this module series, we'll dive deeper into global settings. You'll learn about the overarching configuration parameters of your model, empowering you to make informed decisions on whether to adjust these settings or use the default ones that have been programmed based on machine learning best practices.

Chapter 2

Series Prerequisites

Due to the complexity of some of these configuration settings, we recommend being comfortable with creating models with recipes and interpreting the EDA report and Results Summary before jumping into manually configuring global settings.

If you choose not to configure these settings, One AI will automatically apply default thresholds and methods based on machine learning best practices, which perform well in most cases. However, while optional, informed configuration of these settings can enhance your model's performance and improve model insight visualization on storyboards.

Chapter 3

Topics Covered

In this series, we will cover 1-2 global settings at a time in individual mini-modules. They do not need to be watched in any particular order and will be grouped as follows. We will start with continuous strategy and null indicators, then correlation type and general

correlation threshold, and leakage and suspicious performance threshold next, then category size threshold, then null drop threshold, and we will finish up with the random state settings.

I will also give you a brief overview of global settings as a concept in this module. We will not be covering the "Generate SHAP" global setting because it is covered in detail in the SHAP module.

Chapter 4

Overview & Purpose of Global Settings

Global Settings Overview

Before diving into the specific global settings and their configurations, let's start with a general overview of what global settings are and how to navigate to them in One Model. In One AI, global settings refer to the overarching parameters and hyperparameters that impact the entire model's behavior and layers.

Global settings serve several functions in One AI. First, they dictate the rules One AI follows during data preprocessing for how it determines which columns to automatically For example, the null drop threshold is a global setting that determines how much missing data a column can contain before being automatically dropped by One AI. They also influence how the model dataset is preprocessed.

For example, the strategy for continuous strategy determines if numerical data will be binned or scaled and how.

Finally, they impact how the model results and insights can be visualized in storyboards. For example, if you do not generate SHAP values, you cannot visualize the input features driving the model predictions on storyboards. Although these settings affect the whole model, they are unique to each model and do not apply universally across all models on your site. For example, you could have a different null drop threshold for every model on your site if you wanted to. The purpose of global settings is to provide the user with complete control over the model configuration.

If you've ever worked on a machine learning project with me, you've probably heard me say that any model configurations set by One AI can be manually overridden and adjusted by the model creator as needed.

The EDA and Result Summary reports provide insight into model configuration, data preprocessing, and feature selection. Based on this information, you may want to intervene to allow the model to include different variables, change how categorical variables are grouped, adjust the null drop threshold, and more. That's where configuring global settings comes into play.

Making informed adjustments to global settings often results in better model performance. By fine-tuning these settings, you can optimize the inclusion of variables, improve the handling of data, and set appropriate thresholds for data quality, which collectively enhance the overall accuracy and efficiency of the model.

Now let's hop over to One Model so I can show you where you can configure global settings settings for your machine learning models.

Chapter 5

Navigation in One Model

Navigation in One Model

To access the global settings of a machine learning model, start by clicking the 'One AI' tab in the main ribbon menu. Then scroll to the model of interest and click 'Edit'. You'll find the global settings near the top of the One AI configuration. Click the caret next to "Global" to reveal the global settings options.

Chapter 6

Conclusion & What's Next

We've explored the importance and functionality of global settings in One AI, highlighting their impact on data preprocessing, improving model performance, and enabling advanced visualizations. While optional, these settings provide valuable control over your model's configuration. With this understanding, you're now ready to explore each specific setting in the upcoming mini-modules. Happy modeling!