

# **“One AI Recipes” Module Transcript**

## **Chapter 1**

### **Intro & Learning Outcomes**

Hi, all. My name is Hayley, and I'm part of the One AI team here at One Model. In the "What is One AI" module, you heard about our machine learning model tool. In this module, we will be discussing One AI recipes.

Many users leverage these recipes to create and refine models. One AI recipes provide a guided framework to simplify the creation of predictive models using your organization's people analytics data.

In this module, we will cover an overview of One AI recipes, the available recipes in One AI, and how to use One AI recipes to create machine learning models with ease.

After completing this module, you will understand the purpose and use of One AI recipes to simplify the creation of machine learning models, save time and resources, and avoid common modeling errors. You will gain familiarity with the various models that can be created using recipes, such as attrition and high performer models.

And you will know the steps to use a recipe to build a model, including defining the outcome, selecting the population, and choosing the attributes.

## **Chapter 2**

### **One AI Recipes Overview**

#### Section 2 - One AI Recipes Overview

Creating machine learning models can feel scary or intimidating, especially if you're not a data scientist or new to this type of work. However, the guided model creation framework of One AI recipes paired with One AI automatically finding the best configuration for your model by testing a variety of combinations greatly simplifies this process. This enables beginners to effectively capitalize on the power of predictive analytics and machine learning without requiring any expert knowledge.

Recipes are predefined structured templates designed to simplify the creation of machine learning models using your organization's people analytics data. They provide

a step by step framework that allows you to easily select the type of outcome you want to predict, answer a series of guiding questions about the data, and generate a well structured predictive model with transparent results.

The purpose of One AI recipes is to bridge the gap between traditional people analytics and machine learning, enabling nontechnical users to easily leverage interesting predictive analytics. Here's how One AI recipes enhance the modeling process.

First, a simplified workflow. The step by step process with suggestions and explanations for each field reduces guesswork and demystifies complex machine learning tasks, making them suitable for people of all experience levels.

Next, we have the reduced risk of errors. With inline guidance and the ability to validate selections, this greatly minimizes common modeling errors. And finally, time efficiency. Recipes streamline model building, allowing quick creation without manual feature selection or any need for custom code, enabling you to focus more on understanding your data and getting creative with your analyses and visualizations. Now that you have a better understanding of what One AI recipes entail, we will explore the specific types of recipes we have in One AI.

## **Chapter 3**

### **Available One AI Recipes**

#### Section 3 - Available One AI Recipes

We offer a diverse collection of One AI recipes based on the most commonly created and requested models by our users. These recipes cater to a wide range of predictive needs, helping you find a great match for your objectives. We are always expanding our selection to include new recipes. With each recipe, you will receive the data needed to explore predictive outcomes as well as the drivers of the predicted behaviors.

We will start with our classification model recipes. The voluntary attrition model, which is also known as a flight risk model, is our most popular model and a great starting point for beginners. It predicts the likelihood of an employee voluntarily terminating within a selected time period.

The involuntary attrition model is very similar to the voluntary attrition model, but instead predicts the likelihood of an employee being involuntarily terminated within a selected time period.

The new hire success failure model predicts whether a new hire will succeed or fail within a specified period after their hire date. Essentially, it assesses if new hires will remain with your organization after a critical initial period, typically six months or one year. And the high performer model predicts whether an employee will be a high performer during a specified time period into the future.

Now we will move into our regression model recipe. The group attrition regression model is designed to help you predict the amount of attrition within a selected period of time for groups defined by a dimension level. One AI uses a regression algorithm and considers various generative attributes from data collected before the prediction period.

Finally, I want to emphasize that you are not limited to creating models with predefined recipes. By selecting the custom advanced model option, you can predict any outcome for which you have a defined metric. As long as the data you want to train the model is loaded into one model and you have a metric specifying the population, the possibilities are endless. This applies to both regression and classification models.

In the next section, I'll hop over to a demo site to show you how to use recipes to create models.

## **Chapter 4**

### **How to Use One AI Recipes**

#### Section 4 - How to use One AI Recipes to Create Machine Learning Models

To access the One AI query builder and use a One AI Recipe, start by clicking on 'One AI' in the main ribbon menu. Then click 'Add Machine Learning Model' in the upper right corner. Enter a display name for the model, select 'One AI Recipe' under 'Using Data From,' and click 'Configure One AI Recipe'.

In the 'What are you interested in predicting?' section, select your desired recipe from the list of available recipes. Although the wording and guidance may vary slightly depending on the recipe chosen, the overall process follows the same steps.

If at any point you are unsure about any fields, hover over the information icons throughout each step for recommendations.

In the first step, select a metric to define the outcome you are predicting and apply filters if needed. For example, I have selected the High Performers metric and I can choose to exclude those that were not previously rated with the 'Previous Performance' dimension.

In the second step, define the model population by selecting a population metric, which is often a headcount metric or a hires metric. In this case, I'm going to use a 'Headcount (EOP) - Managers' metric. Next, select a unique identifier, which is an ID that is different for each instance in the model population. This is usually the person or employee ID from the employee or employee event table. Next, you can choose the population date, which anchors the predict frame and train test frames. This defaults to today, but it can be changed to a static date, end of last month, end of last quarter, or end of last year. And finally, you can further filter your population metric to target a specific population if you wish.

In the third step, specify how far in the future you want to measure your outcome metric. For example, in this high performer model, you would decide when you want to measure if high performance was achieved, typically set to one year, but fully customizable to ensure that performance reviews have occurred within the interval defined here. You can change the number here and you can change the interval to years, quarters, months, or days here.

In the fourth step, define how much historical data to use for training your model. The training intervals are based on the period set in the third step. For example, if set to one year, one training interval is one year. Generally, using 1-2 years of data is optimal for training.

The fifth step is optional but highly recommended to read model results and storyboards more easily. Assign meaningful labels to your prediction target by clicking 'Load Target Metric Values' and specifying an override label for each value. Skipping this step means end users will need to remember which label represents the positive outcome and interpret 0s and 1s, which detracts from the user experience.

In the sixth step, select which core attributes the model will train on. You have the flexibility to manually select attributes using the check mark button and exclude others using the 'X' button, or you can choose from the defined scopes. 'None' includes only the unique identifier. All other attributes must be manually selected. 'Narrow' includes all attributes from columns within the table of the unique identifier, typically the employee or the employee event table. 'Balanced' includes attributes from columns within and one join away from the table of the unique identifier. And finally, 'Broad' includes attributes from all tables joined to the table of the unique identifier.

We have found that narrow or balanced are optimal for most models. You can also mix scope selection with manual inclusion or exclusion of attributes.

The variables in the 'Included' section are the input variables that the model learns from.

If a table is in the unavailable section, it usually indicates that including attributes from it would lead to data duplication or there is no join path to the table containing the unique identifier.

In the seventh step, create and select generative attributes for the model to be trained on. Click the 'Create' button to create new generative attributes, and use the selection boxes to select or deselect generative attributes from your model.

The eighth step, while optional, is highly recommended. Click 'Generate Data Statistics' to verify the validity of your selections and ensure they won't cause errors when the model is run. "Success" indicates no problems with your selections. "Action Needed" will specify any issues. This also provides valuable insights about your dataset such as row counts, unique counts, and minimum and maximum values, helping identify columns that may not be beneficial to include.

The final step is also optional. Click 'Download Train/Test Data' or 'Download Predict Data' to generate CSV files from this recipe. This allows you to fully validate the dataset or leverage the data with external data science tools.

Once you are happy with your selections, click the save icon in the upper right corner, then scroll to the bottom and click 'Create'.

Congratulations! You have officially created a machine learning model with a One AI recipe and are ready to run your model.

## **Chapter 5**

### **Conclusion & Thanks**

One AI recipes empower you to leverage machine learning without extensive technical expertise. With the step by step guided framework, you can confidently create predictive models tailored to your organizational needs. Whether predicting employee attrition, promotion likelihood, or identifying high performers, One AI recipes simplify the process and ensure reliable results. The system's flexibility also allows you to experiment with custom models to predict on and analyze unique scenarios outside of the defined recipe list. Happy modeling!