

AIPI 2022 | Model Card Template

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The purpose of this model card is to provide key information about a specific machine learning model. Model cards increase transparency by communicating information about trained models to broad audiences. You can view real-world model card examples [here](#).

Task: Regression
Program or Tool Used/Analyzed: Nourish Demo - Digital Fridge Recommendations

Purpose

*The purpose of a program is **why** it was made (different from how it works). Type a brief description of the program's purpose or give examples of how it could relate to a real-world task.*

<p>The purpose of the program is to use data and regression models to make predictions and recommendations based on what users might want to eat throughout the week in order to ease the process of grocery shopping.</p>
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Function

Based on the task being completed, draw your responses from the [Task Reference Document](#). Input/Output should match the task listed above.

Type of Input: Text (History of the user's grocery purchases)
Type of Output: Numerical Value (What they're likely to order next)
Description of Data Input: Former receipts

Description of Data Output (e.g. specific categories if classification task): The food that will be recommended for you based on your past items bought and dietary restrictions and needs.

Training Data

Training data is the data that is used to teach a machine learning model.

Where does the training data come from?

The Nourish app will require an immense amount of data to be effective and efficient. The Nourish app mainly incorporates user personal data (Age, weight, allergies, preferences, nutritional goals, and budget), nutritional requirements and recommendations to create a healthy, balanced diet, information on food/drink products in stores, nutritional information of foods, and a large database of meals and food items

Who is training the model?

The model is automatically trained based on the dietary goals and personal information of the users.

Number of Training Data Samples: Dependent on the scale of the app (Ex. # of stores, users, and recipes).

Is the training data labeled?

- Yes
 No

Ethical Considerations

Consider demographic groups, environmental conditions, safety, privacy, and technical factors/limitations, etc.

1) What could go wrong from an ethical perspective when using this model? 2) What effect would this have? 3) How could this be prevented?

1.) A potential ethical concern associated with the Nourish app is the income and accessibility of food for users. Low income areas with subpar access to food are known as food deserts. Users of the app who live in these areas may buy food because it is cheap and not because they prefer it. Also, the Nourish app may recommend food items that are expensive and hard to access for users.

2.) It might be impossible to recommend food that the user likes if the ingredients simply aren't available to them. Also, the user might not be able to afford all of the ingredients.

3.) If the company gets to a point that it can provide its own transportation, the online ordering feature would become capable of providing any product or ingredient, regardless of location. Additionally, the initial survey can ask for the user's budget in order not to recommend meals that might cost the user more than they can afford.