

Goal

The goal for this project is to find similar products to given product based on customers' buying history by building machine learning model.

Data

Revolution Dancewear belongs to fashion industry. Different types of products have different selling seasons. So, for the input data are three different datasets (Dancewear, Costumes and Tenth House), which are three different types products. And they are transactional data from fiscal year 2019. In fashion industry, companies update their products year by year, as what Revolution Dancewear have done since the company was found. Therefore, we believe older historical data is not helpful to fit to the model.

Fit a model

We created item-based rating matrix. Column represents Customer ID, row represents Product ID, and the values are QtyOrdered and filled missing values with zero. For implementing collaborative filtering, we have to use ratings, so the order quantities are transformed to ratings based on the quantity quartiles. Then KNN is applied to find similar items.

For evaluations, we split the data into training and validation sets. The training portion was used to develop a collaborative filtering model, while the validation portion evaluated the model's performance.

Applications

This is what the E-commerce site looks like currently.


COSTUMES

DANCEWEAR

REVRAVE

STUDIO RESOURCES

REVOLUTION / COLORFLOW FOOTED TIGHTS



COLORFLOW FOOTED TIGHTS

1000 - 1021

Stretch and comfort abound with these footed tights with color that flows from tights to shoes. These tights are made with a blend of 86% nylon and 14% spandex, a cotton gusset, and a comfortable waistband that stays in place while dancing.

Official uniform of the Twinkle Star Dance™ Program.

Click [here](#) for more information on the Twinkle Star Dance™ Program.

AVAILABLE COLORS (click color to view name)

COLOR:


Various

AVAILABLE SIZES: T - XLA

[SIZE CHART](#)


[CHECK AVAILABILITY](#)

Please [LOGIN / REGISTER](#) to purchase products.




PRINT PRODUCT SELL SHEET

RELATED PRODUCTS




COLORFLOW CONVERTIBLE TIGHTS

1002 - 1004




COLORFLOW STIRRUP TIGHTS

1005 - 1006



COLORFLOW FOOTLESS TIGHTS

1007 - 1012



TIGHTS DISPLAY

TIGHTS-TDS

After implementing the recommendation model’s output to the website, there will be new section for recommendations showed as follow:

REVOLUTION / COLORFLOW FOOTED TIGHTS



COLORFLOW FOOTED TIGHTS
3000 - 0001

Breath and comfort abound with these footed tights with color star flexes from tights to shoes. These tights are made with a blend of 85% nylon and 15% spandex, a custom gusset, and a comfortable waistband that stays in place while dancing.

Official uniform of the Turnstile Star Dance® Program.

Click [here](#) for more information on the Turnstile Star Dance® Program.

AVAILABLE COLORS (click color to view name)

COLORS

White

Available Sizes: T - FLA

SIZE CHART

CHECK AVAILABILITY

Please [VIEW DETAILS](#) or [CONTACT US](#)



or view all items in this category

RELATED PRODUCTS



COLORFLOW CONVERTIBLE TIGHTS
3000 - 1400



COLORFLOW STRIPED TIGHTS
3000 - 0140



COLORFLOW FOOTLESS TIGHTS
3000 - 1000



TIGHTS DISPLAY
TIGHTS-100

You may also like



150-157



RD010304 - RD010311



RD600005 | RD600006



RD010504