Pinterest uses Collaborative Filtering.

Collaborative Filtering:  Collaborative algorithm uses “User Behavior” for recommending items. They exploit behavior of other users and items in terms of transaction history, ratings, selection and purchase information. Other users’ behavior and preferences over the items are used to recommend items to the new users. In this case, features of the items are not known.

Basically, what Pinterest do is

1. It records all your recent activities and show them all combined at your home page.
2. Search engines works like normal search- most relevant or most popular designs are shown at the top
3. Sometimes the user is not getting the right words and is searching for something else so they provide some sets of words of the top of the pins to narrow down the search.

How to arrive at the related pins:

1. Click at the pins from any feed, we can see the related pins below
2. By home feed search
3. Another related pin feed

To have perfect search:

We click on an image which we think is related to us and by scrolling down, we can see more related images to have a broader mindset on the things we were searching for. So, we can explore those similar pins from there.

Recommendation Techniques:

1. The system see which 2 pins are saved together.
2. Historical Engagement Data- after seeing a close up pin, which pin did the users click on so that they can see which are the best results.
3. Machine Learning Model- ranking system: how relevant it is to the close up pin and how engaging it is to the user.
4. Choosing the same features pictures as one in the close up pin like the color, style, model, accessories etc.

Types of searching

1. Searching for a specific item
2. Just scrolling the feed and liking anything

Hybrid Search Results:

1. Perform a search request with a rewritten query : like if the user is searching for some text and clicked the recommendations coming above, so the system rewrite the text written by the user + the recommended text.

Let’s take an example: the user searched “Dogs”

And clicked on the recommendation “Puppy”

The system will search “Dogs” + “Puppy” and then give the results

1. Rewrite query: return the top candidates by similarity to query pin. Which means it will result the most relevant pin related to the close up pin.