

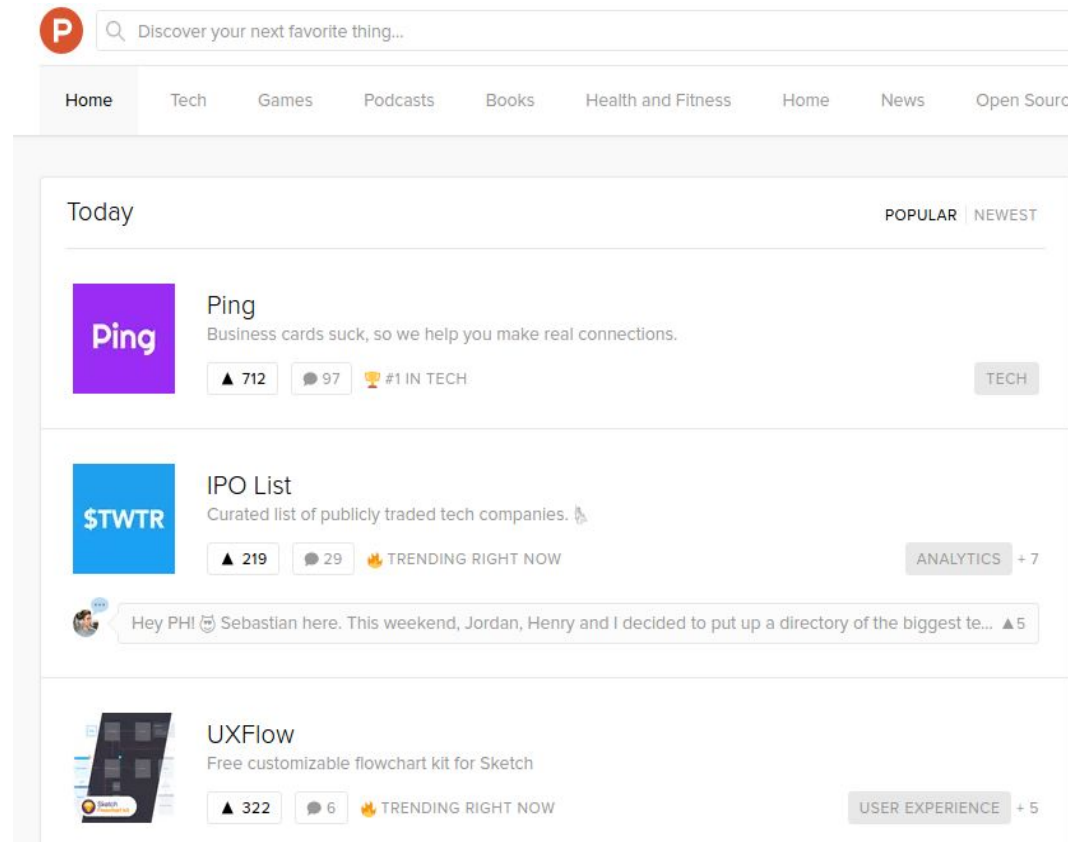


Product Hunter

Joanna Hou


Producthunt.com surfaces the best new tech products, every day

home page



Motivation

users have preferences





Stride Travel

Search and reviews for adventure trips & tours

[GET IT](#)

▲ 263



WEB

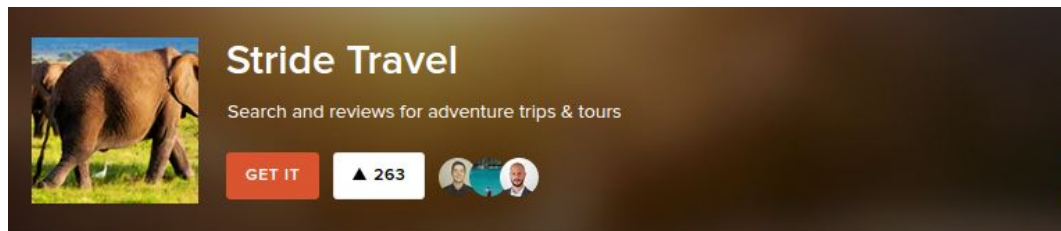
TRAVEL

TECH



How to avoid irrelevant information?

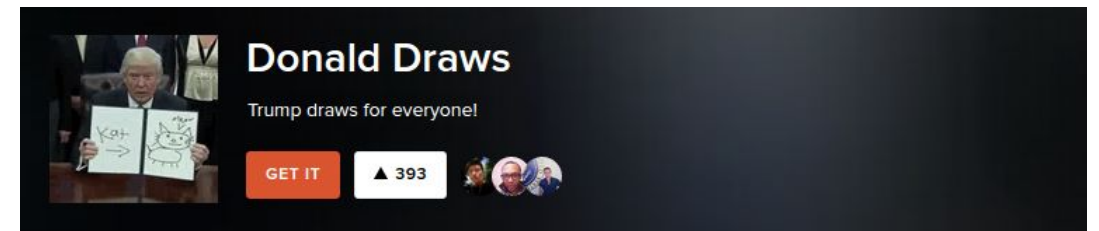
users have preferences



WEB TRAVEL TECH



but they are shown to many irrelevant products



ANDROID TWITTER SOCIAL MEDIA TOOLS DONALD TRUMP TECH



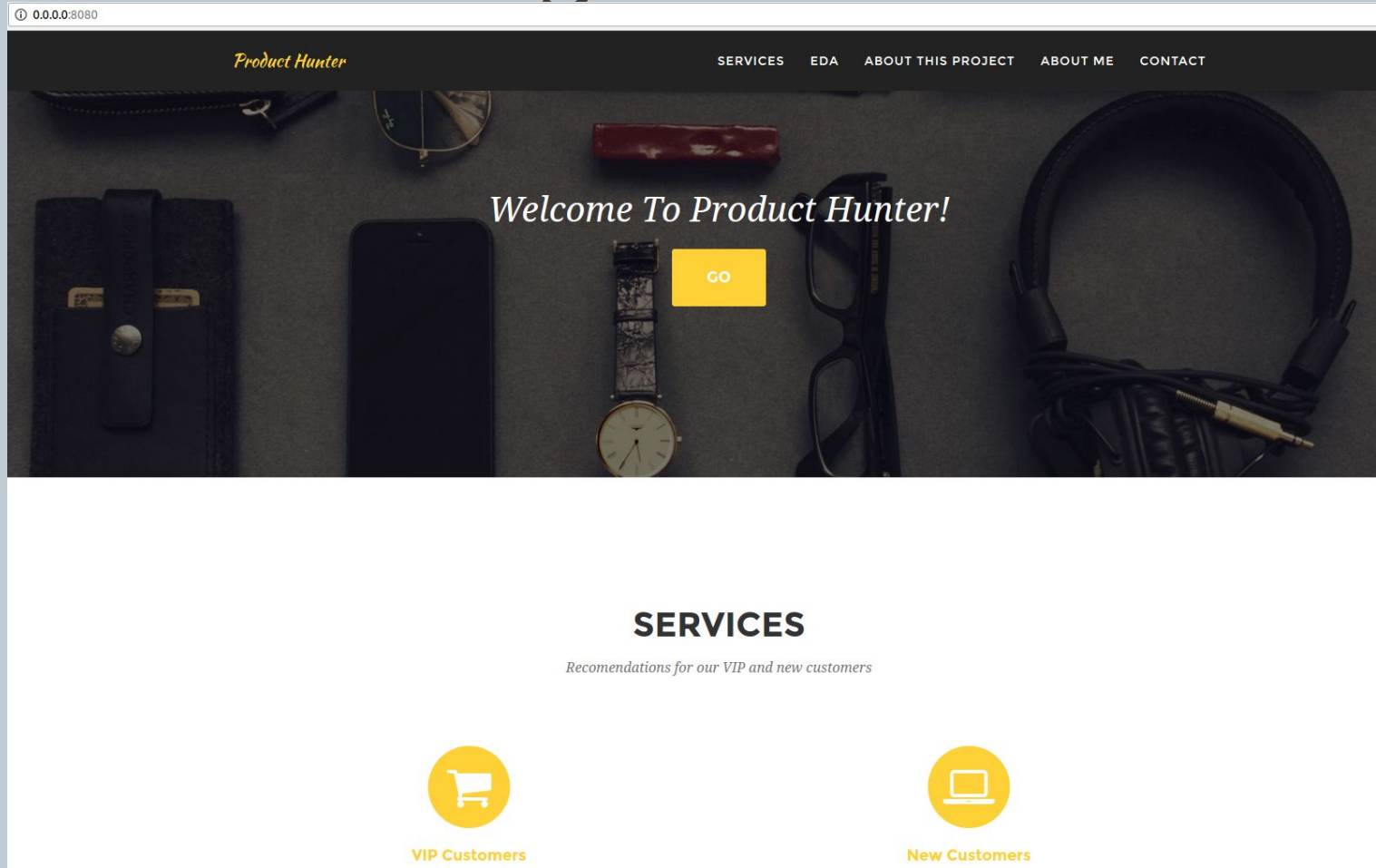


**A personalized
recommender system
may improve user
experience**

Machine Learning Pipeline



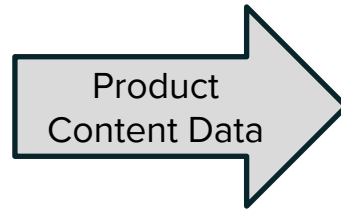
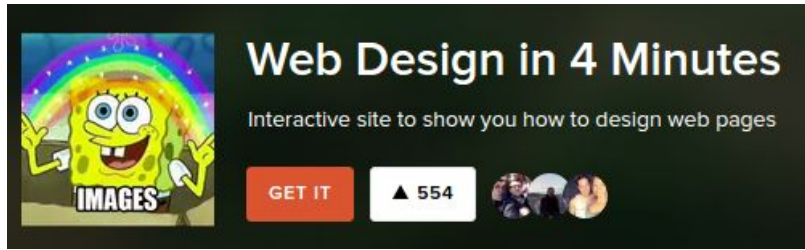
Introducing Product Hunter



a recommender system
for both **new users** and
vip users

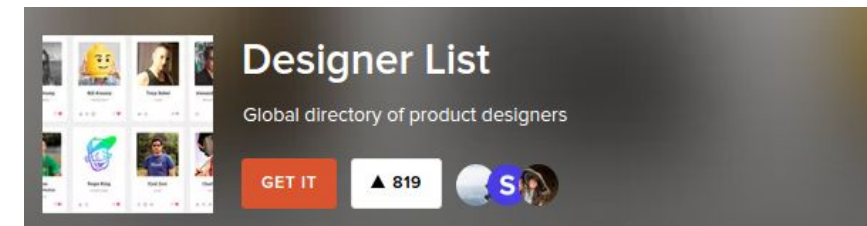
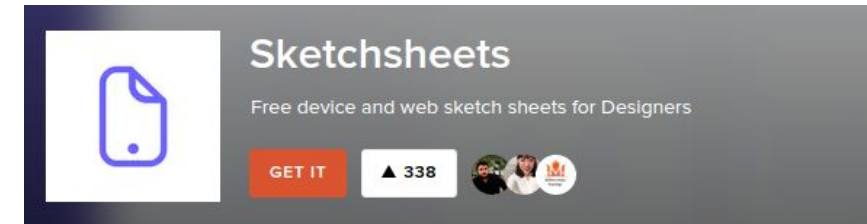
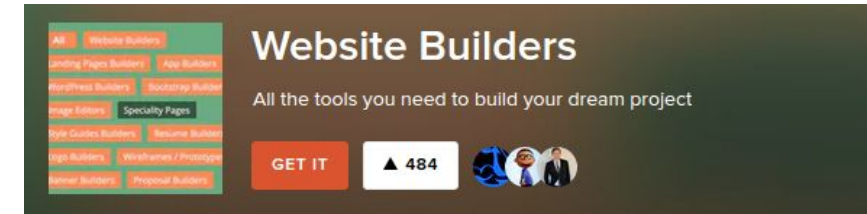
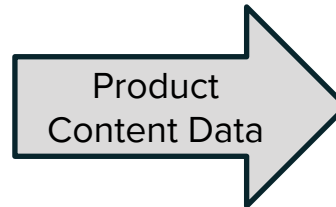
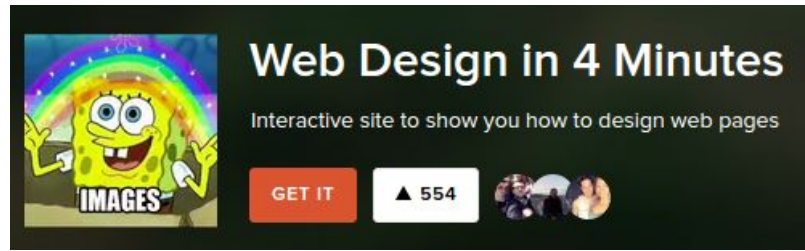
An example for new user recommendations

randomly selected product id: 70981



New user recommender evaluation

randomly selected product id: 70981



An example for VIP users

randomly selected user id:

user id: 18280
name: Chris M.
votes count: 3452

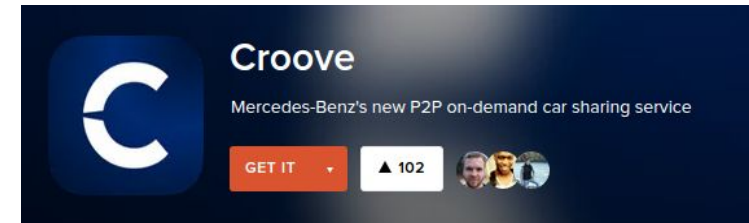


VIP user recommendations

randomly selected user id:

user id: 18280
name: Chris M.
votes count: 3452

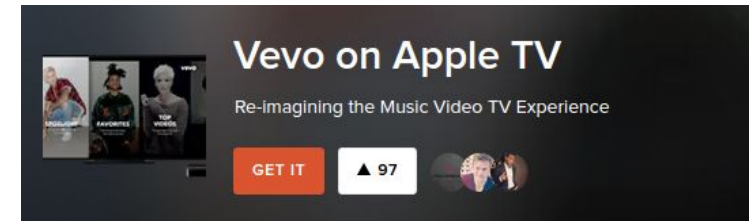
Rating Data



Croove
Mercedes-Benz's new P2P on-demand car sharing service

GET IT ▲ 102

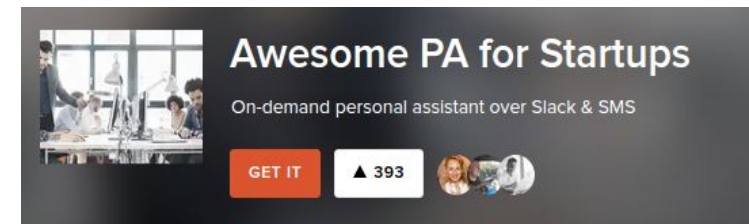
This card features a dark blue background. On the left is a large white 'C' logo inside a dark blue circle. To the right of the logo is the title 'Croove' in white, followed by a subtitle 'Mercedes-Benz's new P2P on-demand car sharing service' in a smaller white font. At the bottom, there is an orange 'GET IT' button, a white box with a black triangle and the number '102', and three small circular profile pictures of users.



Vevo on Apple TV
Re-imagining the Music Video TV Experience

GET IT ▲ 97

This card has a dark background. On the left is a small image showing three music video covers. To the right is the title 'Vevo on Apple TV' in white, followed by the subtitle 'Re-imagining the Music Video TV Experience' in a smaller white font. At the bottom, there is an orange 'GET IT' button, a white box with a black triangle and the number '97', and three small circular profile pictures of users.



Awesome PA for Startups
On-demand personal assistant over Slack & SMS

GET IT ▲ 393

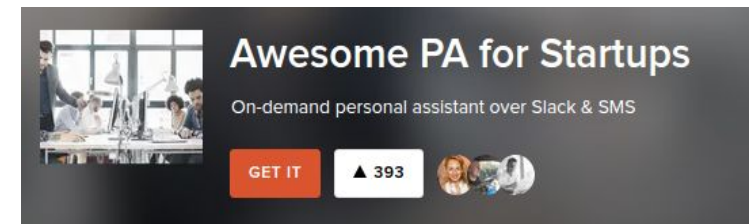
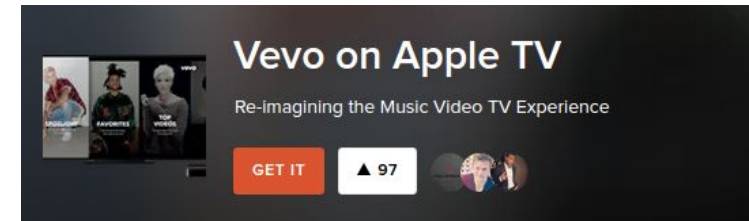
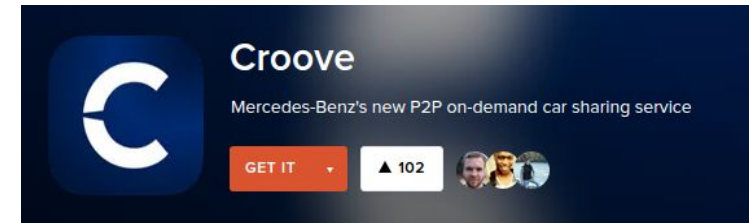
This card has a dark background. On the left is a small image showing a group of people in a meeting. To the right is the title 'Awesome PA for Startups' in white, followed by the subtitle 'On-demand personal assistant over Slack & SMS' in a smaller white font. At the bottom, there is an orange 'GET IT' button, a white box with a black triangle and the number '393', and three small circular profile pictures of users.

VIP user recommender evaluation

Who is Chris M. ?



- uber developer experience lead
- ex google user experience lead
- entrepreneur



Product Hunter improves user experience

baseline

- top 10 popular products daily
- a lot of them are irrelevant to users' preferences

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new user recommender

- recommendations based on product information
- users get top 5 most similar products of their interest

Product Hunter improves user experience

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new user recommender

- recommendations based on product information
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vip user recommender

- recommendations based on users' past ratings
- users get a diverse range of products
- users' interest and interactions with the website are captured

Thank you for your time



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github: github.com/yh2575

linkedin: linkedin.com/in/joanna-hou-2016

Appendix

Data Processing

- Scraped producthunt API
- AWS on big data
- Data Cleaning
 - replaced missing cells with the mode of the column
- Feature Engineering
 - engineered over 20 features such as dummify day of the week, time of the day, certain product categories

Model Building

- Item-content recommender
 - based on 350 + features and 18000 + products
 - important features of products: time of the day, day of the week, categories, number of votes
- Ranking matrix factorization recommender
 - 593185 ratings with 2573 users and 42010 products
 - threshold: users > 50 ratings, products > 10 ratings

Web App Deployment

- Web app design
- Flask
- HTML
- CSS