

Recommendation Systems 101

Joshua Bernhard

In the real world...



Let's Consider an Example of Recommendations in the Real World

Imagine you work for Medium...

and you eventually want to have recommendations for these categories

Medium DAILY DIGEST

Stories for Jbernhard

Today's highlights



The Most Undervalued Data Science Course

To improve your skills fast

Tyler Folkman in Towards Data Science ★ 3 min read



Why I'm leaving Silicon Valley

Here's something I never thought I'd say: this is my last week in Silicon Valley.

Preethi Kasireddy 12 min read



How I Finally Started Pooping Regularly

Six months ago I woke up feeling as though knives were being driven into my lungs with each breath I gasped...

Kristen Campbell Sacred Folk 5 min read



I'm 50, A CEO, & A Former Sugar Daddy—Here's What I Want You To Know
By Jessica Chou

Refinery29 ★ 10 min read

Most read



Why Long Walks Will Change Your Life
Walking is medicine—it cures anxiety, sparks inspiration, and brings us back to ourselves

Harry J. Stead in Human Parts ★ 6 min read



We Are Ships Crashing in the Night
And I can't save us

Ben Kassoy in Human Parts ★ 2 min read



Telling People That Your Parents Are Dead
Grief doesn't end, it just shapeshifts

Alex Z. in Human Parts ★ 10 min read

Based on your reading history



Ridiculous Requirements from Data Scientist Job Ads

Characteristics of Companies That Are Not Yet Data Driven

Benjamin Obi Tayo Ph.D. in Towards Data Science ★ 4 min read



3 Programming concepts for Data Scientists

Less Maths and More Code

Rahul Agarwal in Towards Data Science ★ 7 min read



Microsoft Data Science Interview Questions and Answers!

A walkthrough of some data science questions from a Microsoft Interview

Terence Shin in Towards Data Science ★ 7 min read

Where do we start?

Where do we start?

- Start with just one list at a time.
- The easiest lists to curate do not require user data beyond the aggregate values across all users. Start with these!
- Iterate based on your learnings.

Start Here

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Do This Last

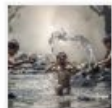
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Design & Layout Considerations

Design & Layout Considerations

- Start with a single template. You do not want to be changing design/layout while also changing how you are generating recommendations.
- Your email layout should match your brand - colors, messaging, etc.

Engineering Considerations

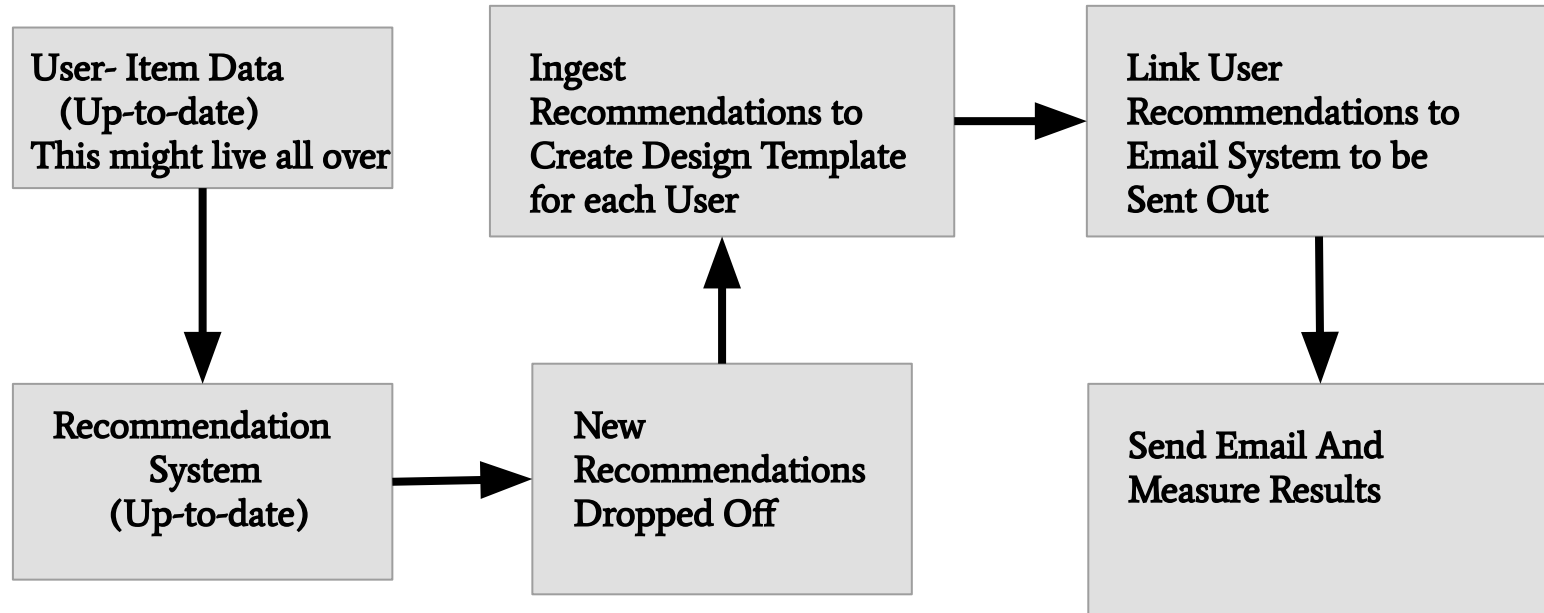
Engineering Considerations

- The more personalized you make your recommendations, the more complicated your engineering pipelines are likely to get.

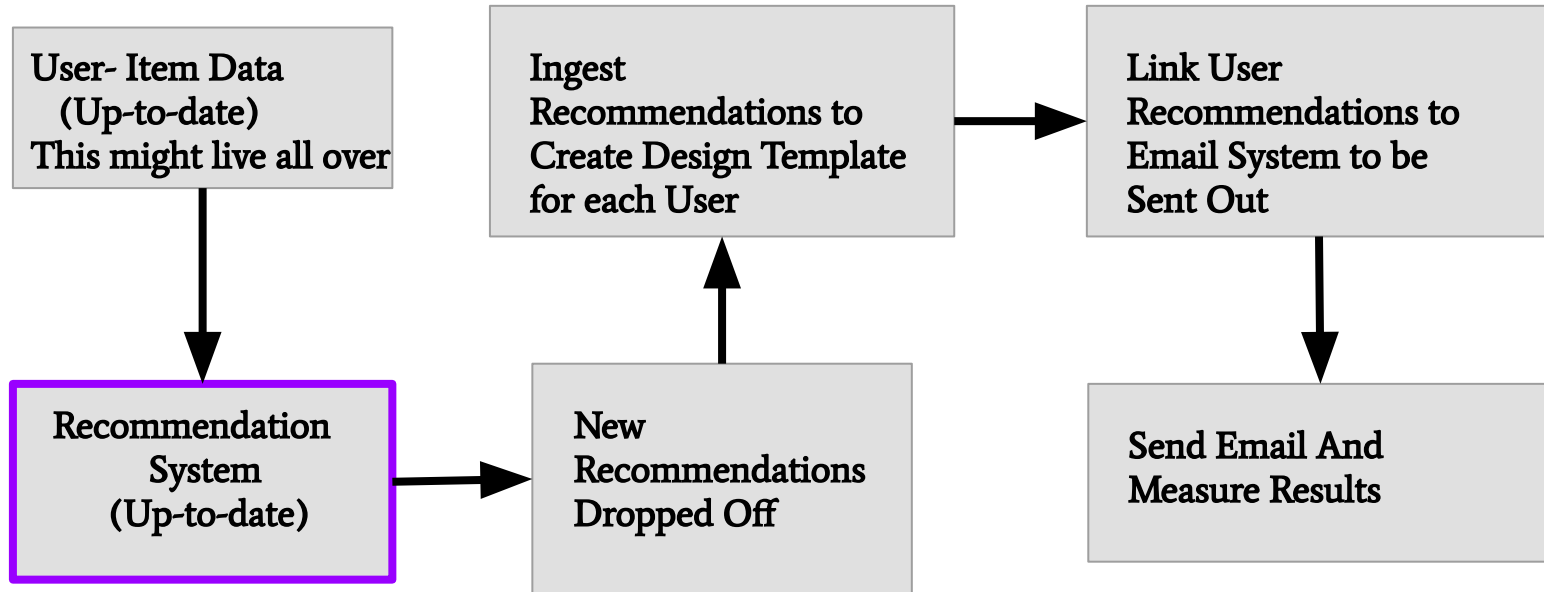
Engineering Considerations

- Building something simple in terms of the recommendation system means you can focus on ensuring that each engineering portion of your system is working appropriately first.

Engineering Considerations



Engineering Considerations



If you build a simple recommender, you can make sure all of the pipes work for each part, as well as end to end before making tweaks inside the Recommendation System Box.

Recap

- Keep It Simple!
- Iterate With One Change At A Time
- Test each engineering portion, and also do a test end to end for a subset of users (test email accounts, or internal company users)
- Understanding the performance and results of your recommendation system will be saved for the final section. (so they were intentionally not covered here)