How can a wine be pointy and sharp?

Viña Cobos 2011 Marchiori Vineyard Block C2 Malbec

"This huge Malbec defines **jammy and concentrated**. The bouquet is **ripe, soft and minty**, while the palate echoes the nose with **thickness and density**. Flavors of **prune, raisin, tea and blackberry** are borderline **syrupy**, while the finish is smooth and pure but doesn't offer much spine or foundation. Drink this modern Malbec sooner rather than later"

- Michael Schachner

Problem:
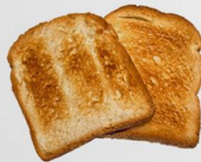Confusing language in descriptions and reviews

"flamboyant"

"oaked"

"bright"

"toasty"

"charcoal"

"laser-like"

Solution: NLP recommendation system

Recommendation system based on topic modeling of 119,000 wine review descriptions
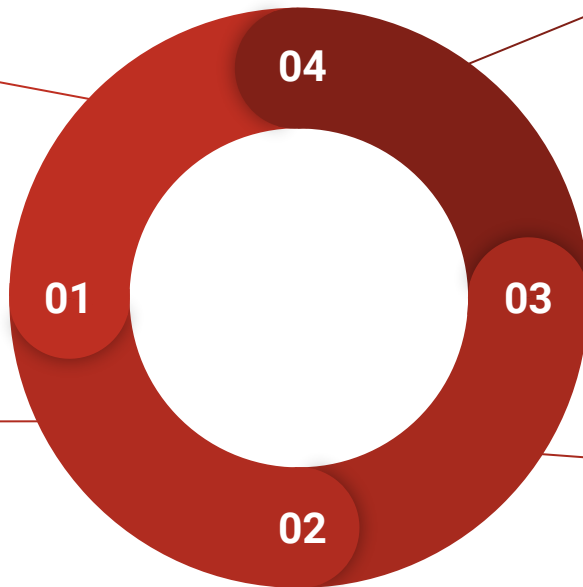
Workflow

Exploratory Data Analysis

119k wine reviews from sommeliers for Wine Enthusiast.

Text Preprocessing

Curated stop word list, stemmed/lemmatized, tokenized

Recommendation system based off final Gensim LDA

Jensen-Shannon Distance computed to find most similar wines

NLP Models

Vectorized words and iterated over many versions of LSA and LDA models

01

02

03

04

Topic breakdown for Viña Cobos malbec

Blend, Chocolate, Black, Cherry, Blackberry
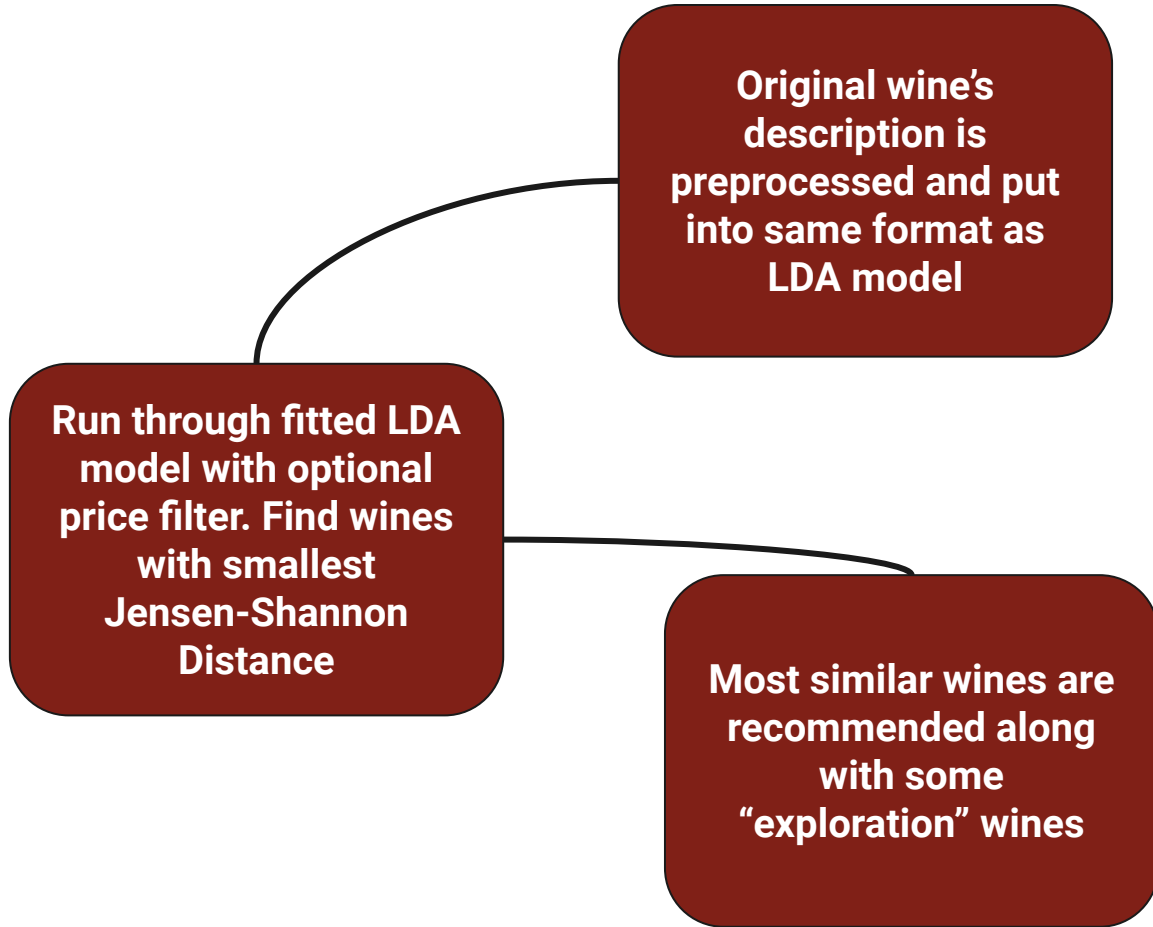
Berry, Plum, Herbal, Tannic, Feel

Finish, red, mild, chunky, short

Oak, herb, vanilla, spice, finish

Vintage, oak, mix, part, highlight

Process for recommending new wines

Original wine's description is preprocessed and put into same format as LDA model

Run through fitted LDA model with optional price filter. Find wines with smallest Jensen-Shannon Distance

Most similar wines are recommended along with some "exploration" wines

Recommendation for Viña Cobos

Swiftwater Cellars Cabernet Sauvignon, WA

"Though aged in just 40% new French **oak**, the barrel notes of **mocha and roasted coffee bean** take up much of the stage with **dark fruit and herbs** fighting for attention. The flavors are **ripe and lush** but seem a bit clipped."

- Sean Sullivan

Blend, Chocolate, Black, Cherry, Blackberry

Berry, Plum, Herbal, Tannic, Feel

Finish, red, mild, chunky, short

Oak, herb, vanilla, spice, finish

Vintage, oak, mix, part, highlight

Thank you

Alen Tersakyan

Summary

Problem: Wine descriptions can be confusing leading to difficulty in pinpointing preferences

NLP Models: Topic modeling to find trends in language used to describe wines

Recommendation System: Used LDA topic modeling and Jensen-Shannon Distance to find similar, more affordable wines
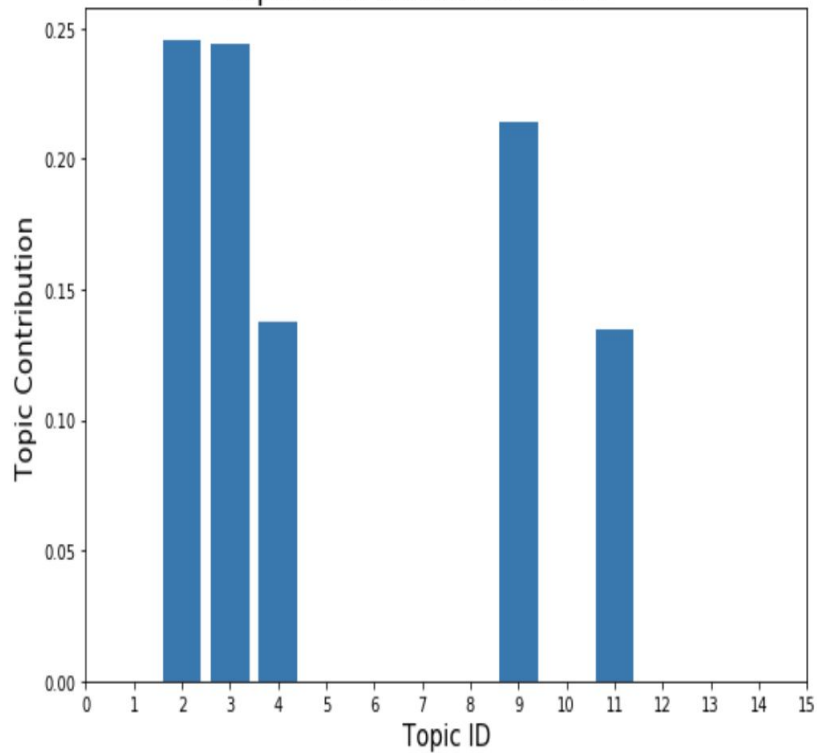
Flaco Winemaker Notes

Brilliant ruby-red. A highly perfumed nose evokes ripe red berries and floral pastilles, and a hint of white pepper lends a spicy touch. Plush, seamless and gently sweet, offering raspberry and cherry compote flavors that become more energetic on the back half. Emphatically fruity and supple in texture, finishing with just a hint of smooth, harmonious tannins. This fruit-driven, very appealing wine offers superb value.

The fresh, pure character of this wine makes this an extremely versatile wine to pair with food. This wine pairs well with white meats like pork and chicken and flaky fish like hake, cod or flounder. This has the fruit and acidity to match with red meats, as well.

Original Malbec

Recommended Wine

Topic Distribution for Wine