EMERALD CITY TRAVEL RECOMMENDATIONS

Personalizing Travel

INSPIRATION

"Dump the Eiffel Tower" – Anthony Bourdain

Seattle Travel

- Art, music, shopping, outdoor recreation, cuisine and coffee
- 40+ million visitors per year
- $7.8 billion in spending

Millennial Travel Trends

- Spend $200 billion on travel (2018)
- 5.6 trips per year (vs. 3.5 for baby boomers)
- 75% use mobile travel apps
- Two thirds of millennials would appreciate personalized travel recommendations

Millennial Prolictivity

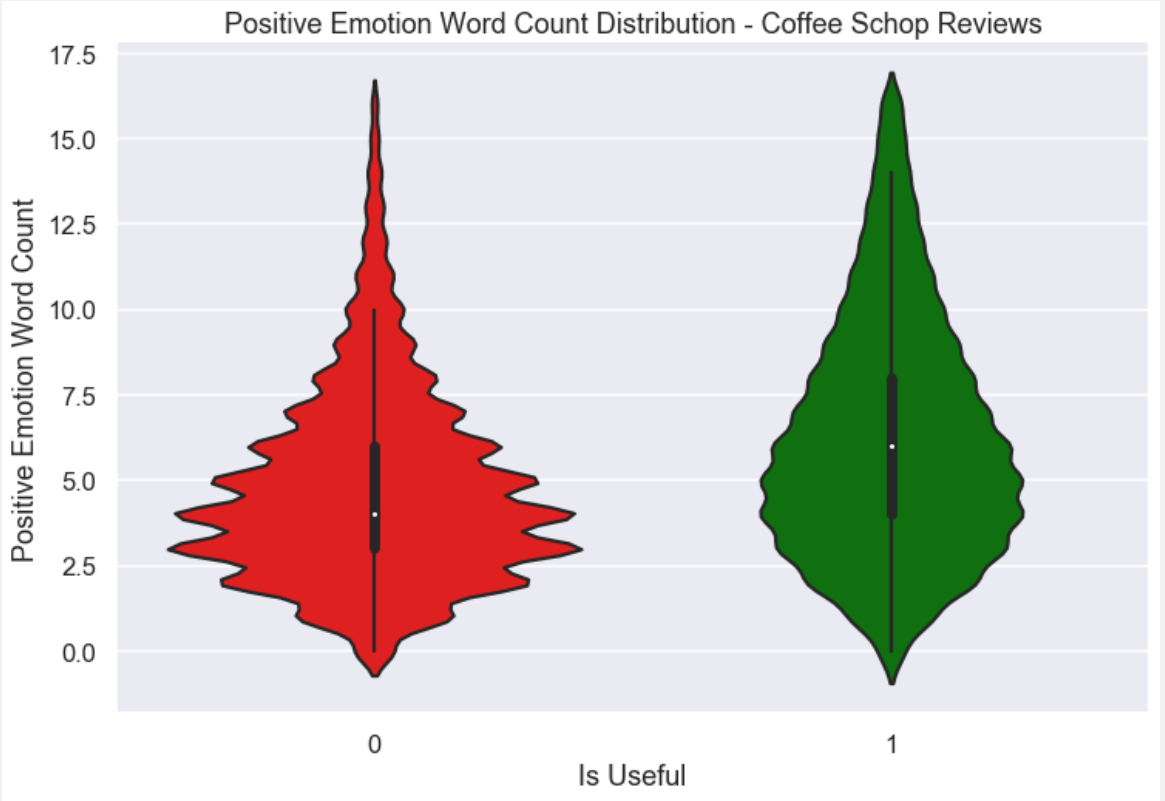
- Demand unique experiences and desire to see life through the lenses of a local
- More likely to support local businesses

PREDICT USEFUL REVIEWS

Predict Useful Reviews

- Yelp Academic dataset
- Binary classification problem – one or more "useful" votes (1), zero votes (0)
- Engineered many features
- Various models
- Ultimately unreliable metric ("useful' votes)

Unsuccessful ~68% Accuracy



PHASE II: MOBILE APPLICATION CONCEPT

TRAVELER INPUT

- Select coffee shop, boutique store, or nightlife category
- - Input URL of favorite local business of relevant category

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Scrape Yelp reviews of traveler's favorite business in their hometown

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APPLICATION OUTPUT

Compare scraped review data to Seattle businesses to make unique recommendations

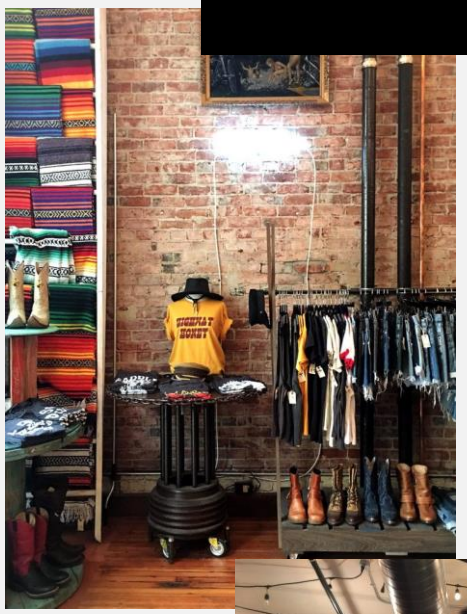
SYDNEY FROM ATX

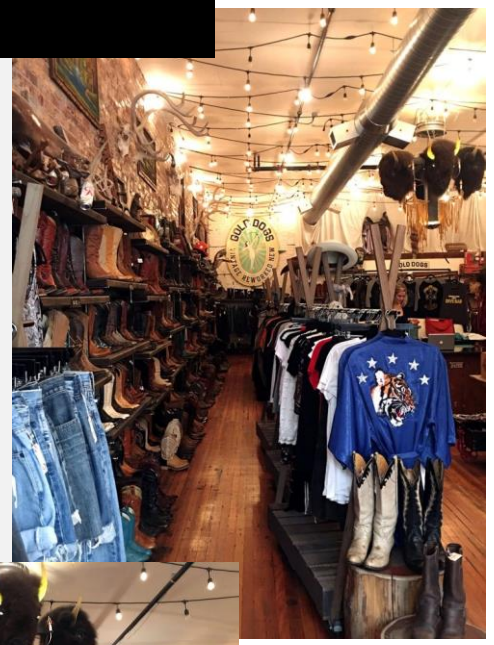
Sydney loves searching for hidden treasures in vintage stores and frequents "Charm School Vintage" in her home city, Austin, TX. She will be visiting Seattle next weekend and would like recommendations on personalized shopping experiences.

Charm School Vintage, ATX

recommends…

Gold Dogs, Seattle





FUTURE WORK

Broaden Application

- More cities
- More destination options (restaurants, hiking trails, family fun, and more)

Incorporate Features Other than Reviews

- Collaborative vs. content-based recommendation systems
- Hybrid system

Explore Advanced NLP Techniques

- N-grams
- Word embeddings

THANK YOU

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