





Warm up to winter

Furnace Repair Heating HVAC



Write a Review Events Talk

Log In

Sign Up



Find burgers, barbers, spas, handymen...

Near address, neighborhood, city, state or zip



🏡 Heating 🍽️ Restaurants

📍 Current Location

🕒 461 37th St Brooklyn, NY 11232

🕒 Civic Center, Manhattan, NY

Rowster New American Coffee
Photo by MyThy H.

Find the Best Businesses in Town



YelpExplore

An App that generates Content-Based Recommendations
that make it easier to find new places to go in New York City

Jacqueline Kuo
December 12, 2019



Let's explore New York City!

Select a Neighborhood to Explore:

High Bridge and Morrisania

Activity:

Hair

Food

Spas

Museums and Art

Tours and Learning New Things

Meal:

Thai

Ramen

Chinese

American

Curry

Second Meal:

Milkshakes

Chips, Guac, and Margs

Oysters

Cake and Pie

Dumplings

305 Fitness Claimed

★★★★★ 174 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

[Cardio Classes](#) [Edit](#)

Washington Square Park 2 Mile data ©2019 Google

18 W 8th St
New York, NY 10011
bt 5th Ave & MacDougal St
Greenwich Village
[Get Directions](#)
(212) 603-9931
[305fitness.com](#)
[Send to your Phone](#)

Photo of 305 Fitness - New York, NY, United States

See all 62 photos



LoveMama Claimed

★★★★★ 4759 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$-\$ Thai, Malaysian, Vietnamese [Edit](#)



Smalls Jazz Club Claimed

★★★★★ 340 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$ Lounges, Jazz & Blues, Music Venues [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Review Highlights

Mermaid Spa Claimed

★★★★★ 81 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$ Day Spas, Saunas [Edit](#)

3701-11 Mermaid Ave
Brooklyn, NY 11224
Sea Gate
[Get Directions](#)
(347) 462-1166
[seagatethubs.com](#)
[Send to your Phone](#)

The new price list. Worth the entrance... by Rae Lynne K.

See all 19 photos



Gelso & Grand Claimed

★★★★★ 860 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$ Italian, Pasta Shops, Pizza [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Liberty Cycles Claimed

★★★★★ 158 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$-\$ Bikes, Bike Rentals, Bike Repair/Maintenance [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Photos and Videos



Please Don't Tell Claimed

★★★★★ 1785 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$\$ Lounges, Speakeasies [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Review Highlights

Museum of Future Experiences Claimed

★★★★★ 26 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Performing Arts, Virtual Reality Centers [Edit](#)

78 Worcester St
New York, NY 10012
bt Spring St & Broome St Soho
[Get Directions](#)
[themofe.com](#)
[Message the business](#)
[Send to your Phone](#)



305 Fitness Claimed

★★★★★ 174 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

[Cardio Classes](#) [Edit](#)

18 W 8th St
New York, NY 10011
bt/5th Ave & MacDougal St
Greenwich Village
[Get Directions](#)
(212) 603-9931
[305fitness.com](#)



LoveMama Claimed

★★★★★ 4759 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$ - Thai, Malaysian, Vietnamese [Edit](#)

5 Boroughs

4700+ Listings

600K Reviews

Liberty Cycles Claimed

★★★★★ 158 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$ - Bikes, Bike Rentals, Bike Repair/Maintenance [Edit](#)

Photos and Videos



Mermaid Spa Claimed

★★★★★ 81 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$ - Day Spas, Saunas [Edit](#)

3701-11 Mermaid Ave
Brooklyn, NY 11224
Sea Gate
[Get Directions](#)
(347) 482-2166
[seagatethubs.com](#)
[Send to your Phone](#)



Gelso & Grand Claimed

★★★★★ 860 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

\$\$ - Italian, Pasta Shops, Pizza [Edit](#)

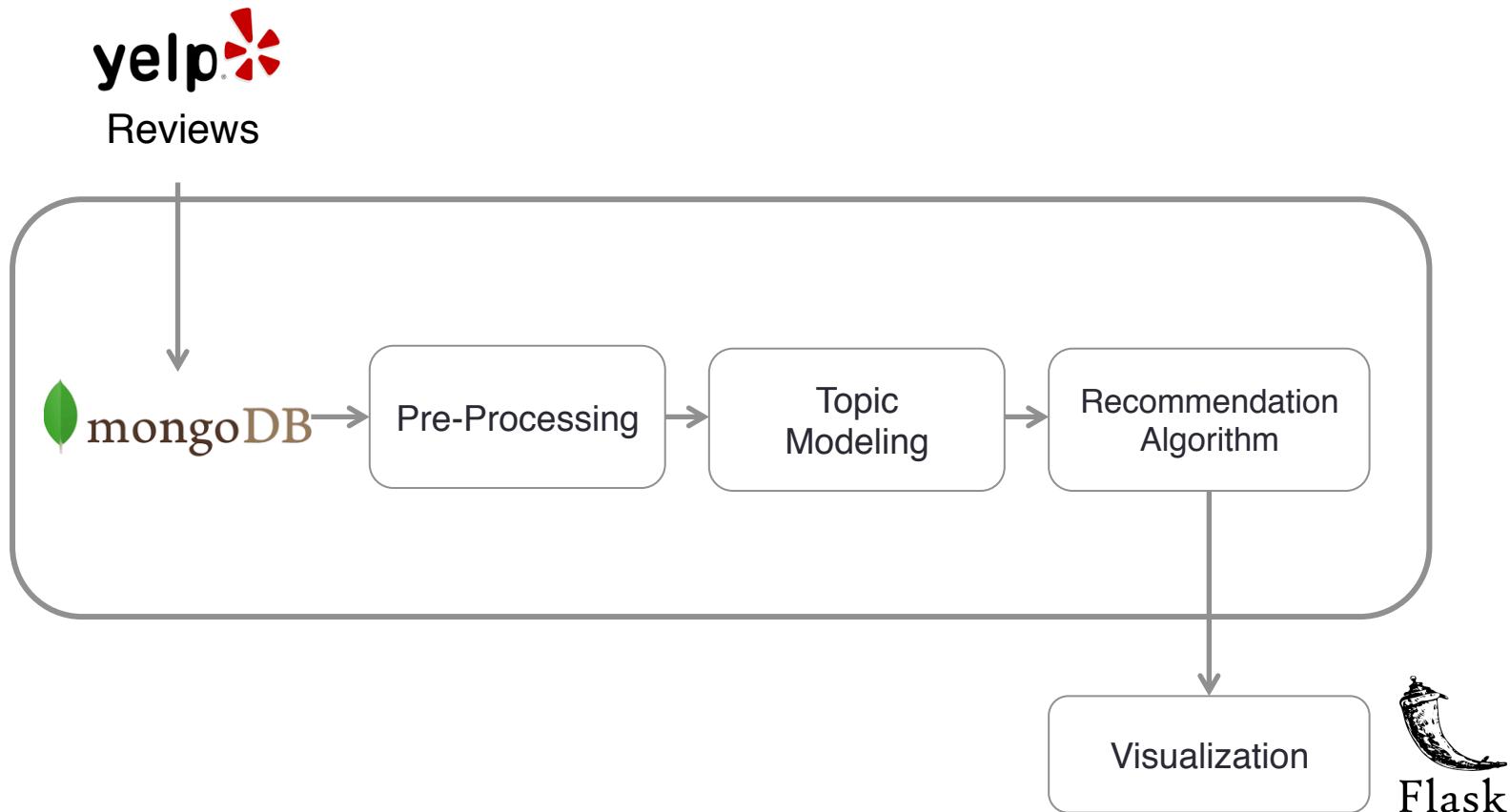
Museum of Future Experiences Claimed

★★★★★ 26 reviews [Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

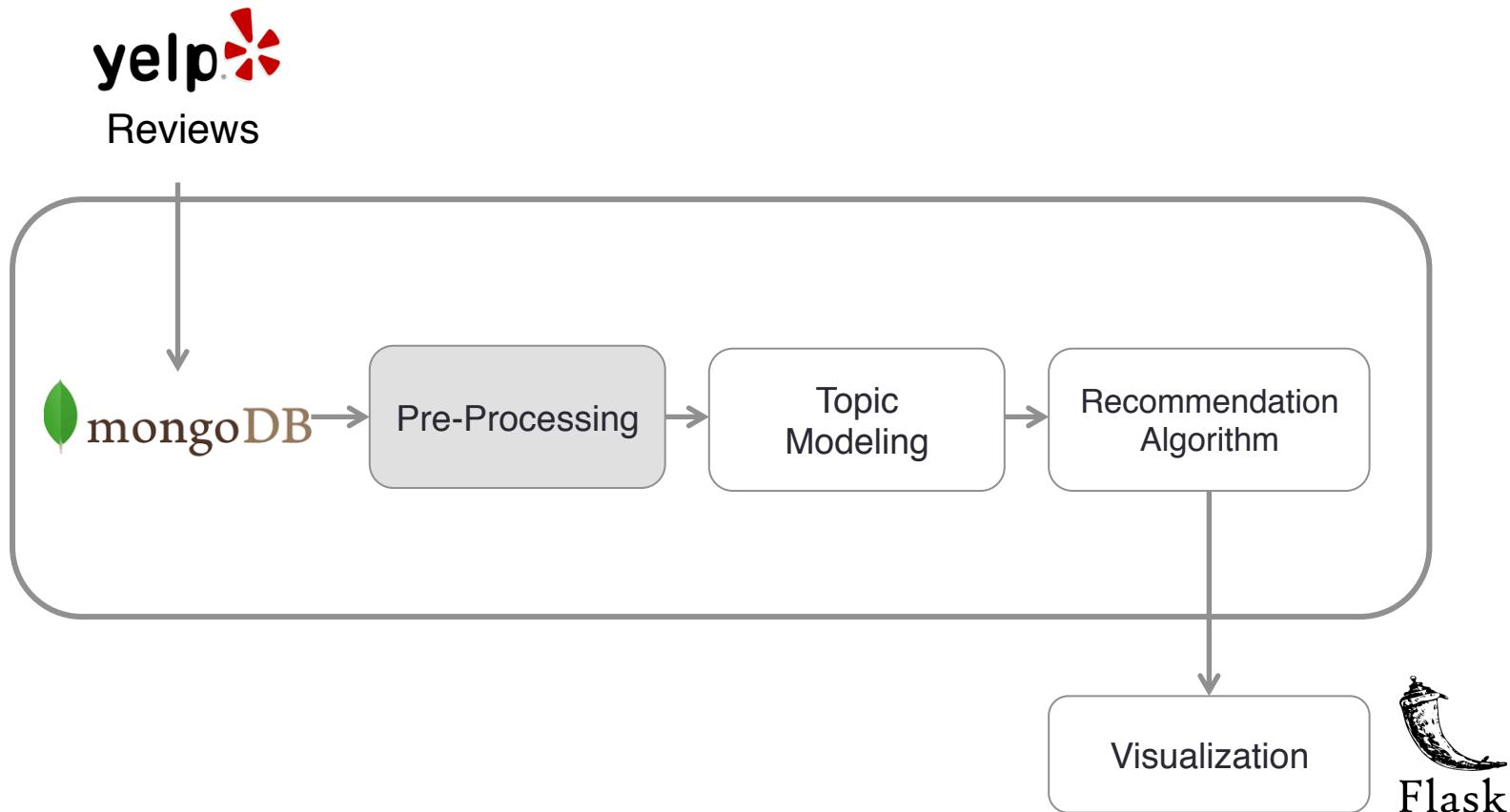
Performing Arts, Virtual Reality Centers [Edit](#)

78 Worcester St
New York, NY 10012
bt/Spring St & Broome St
Soho
[Get Directions](#)
[themofe.com](#)
[Message the business](#)
[Send to your Phone](#)

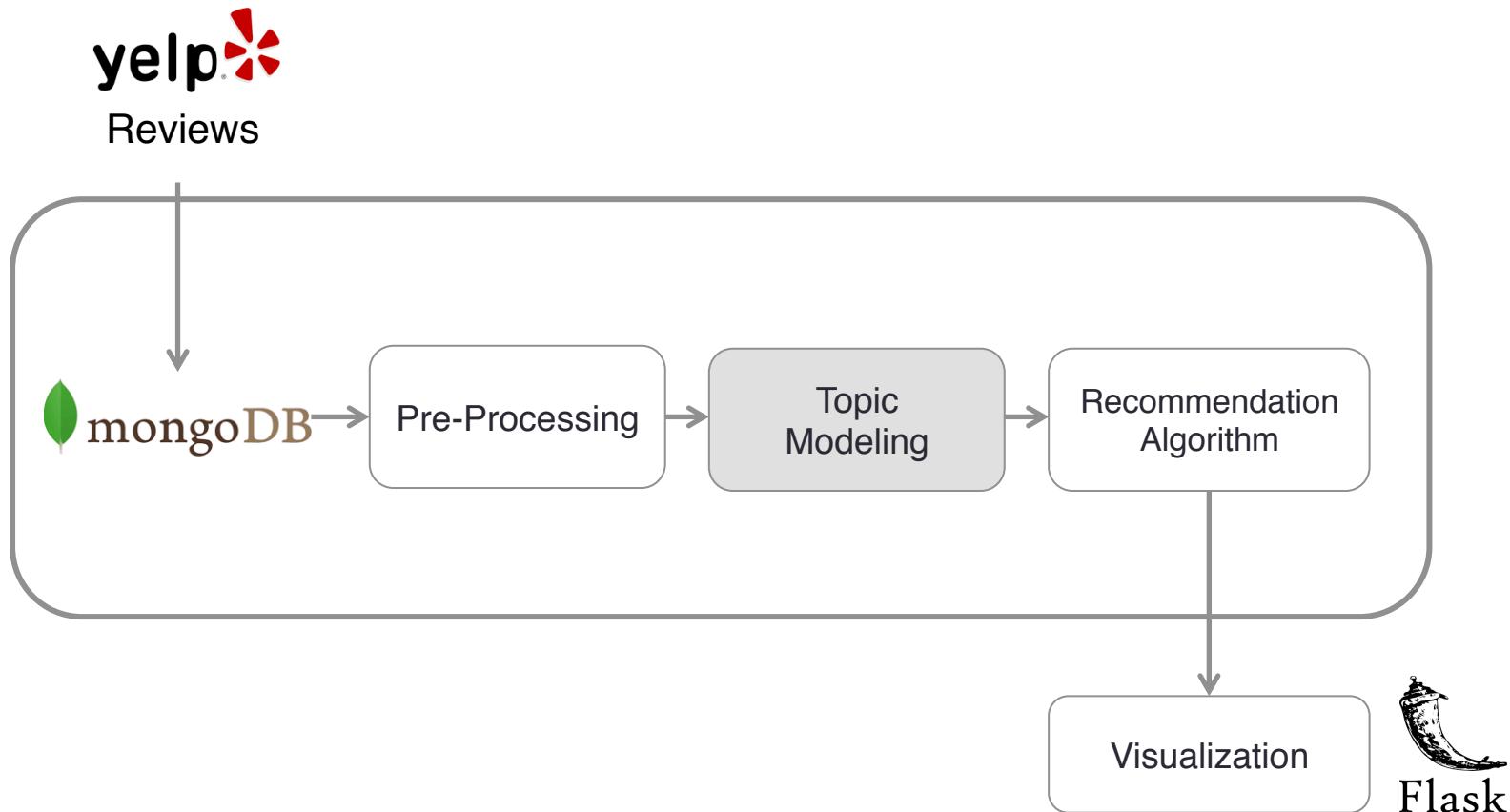
Data Pipeline



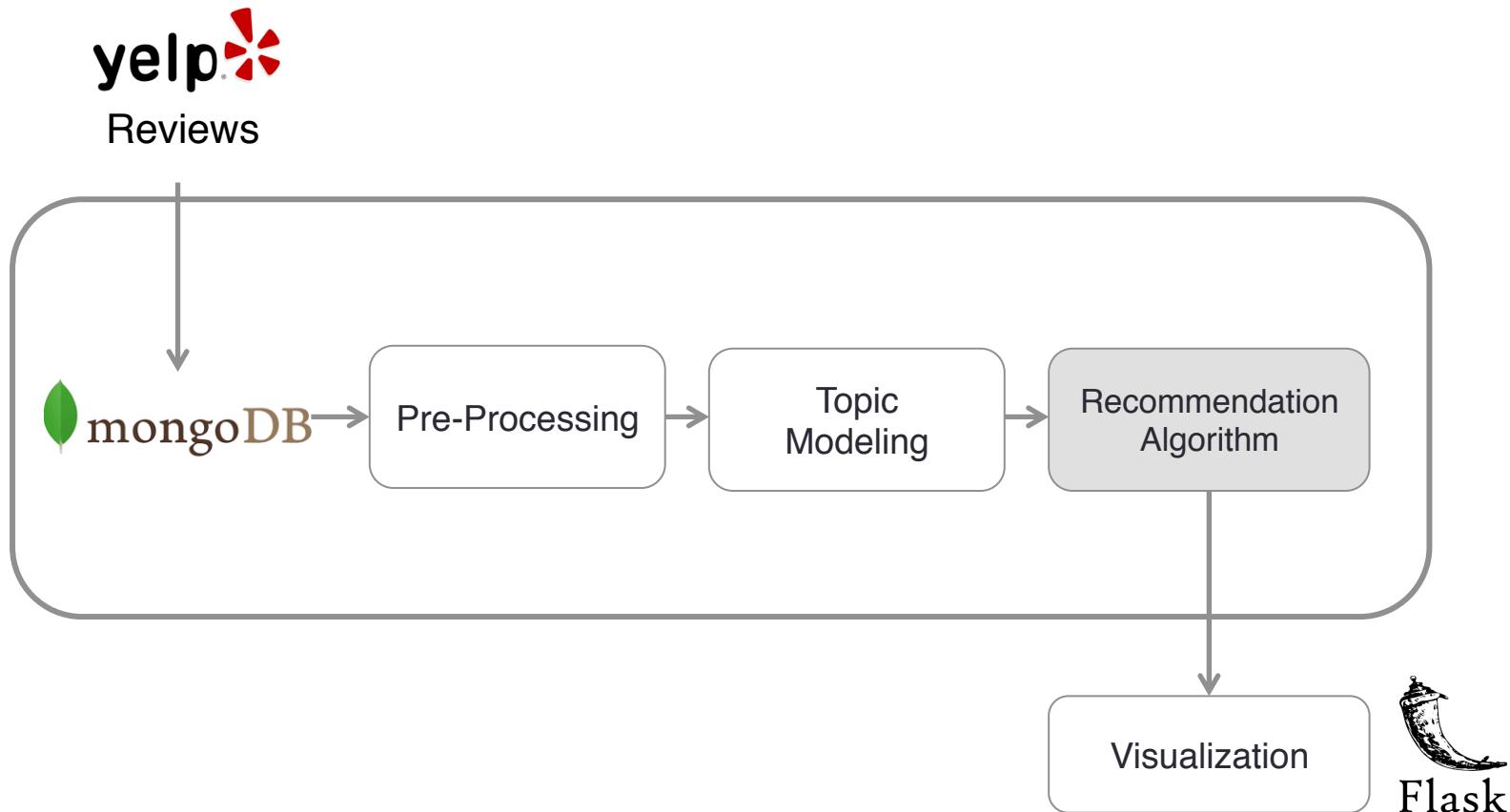
Data Pipeline



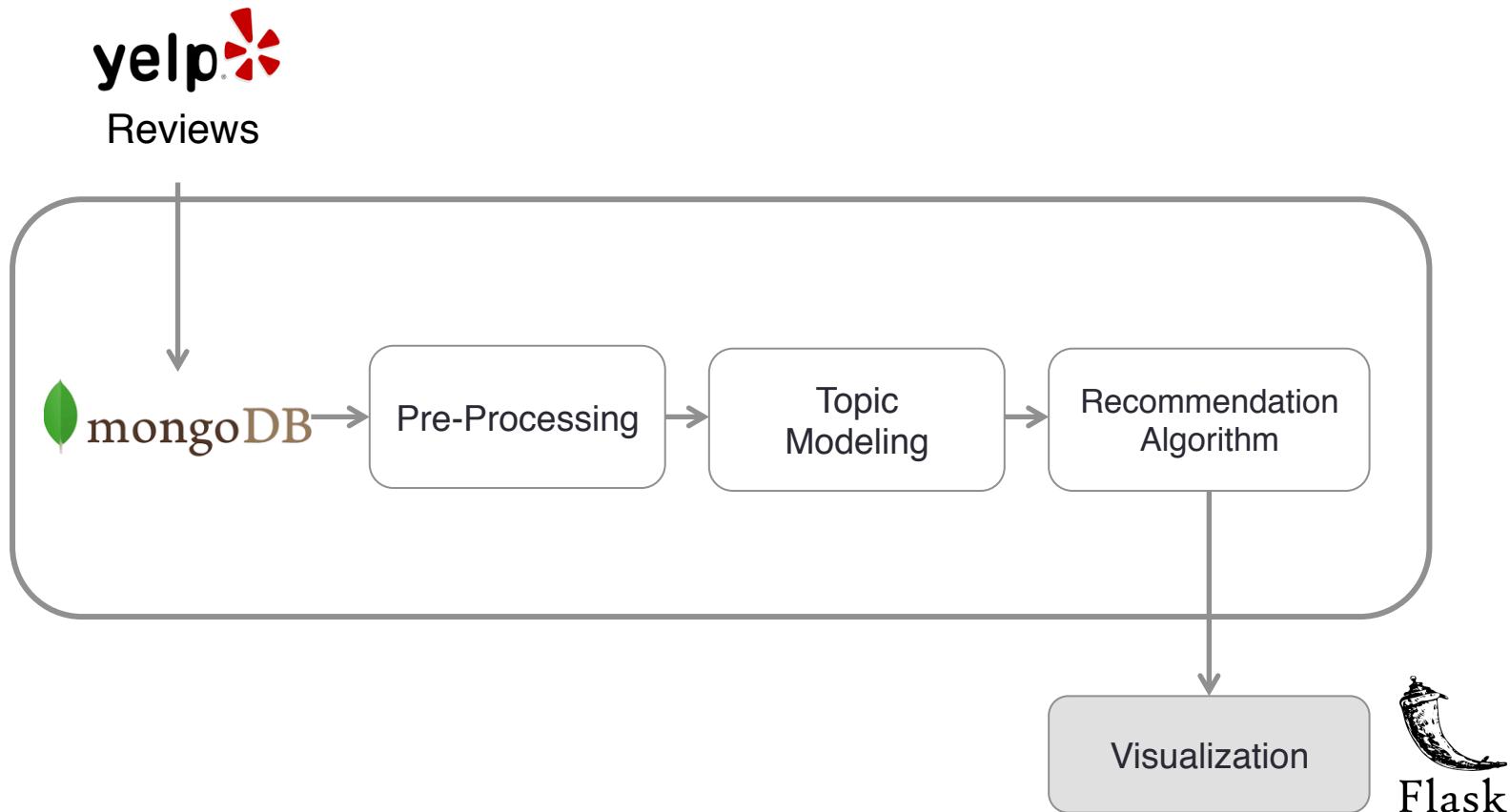
Data Pipeline



Data Pipeline



Data Pipeline

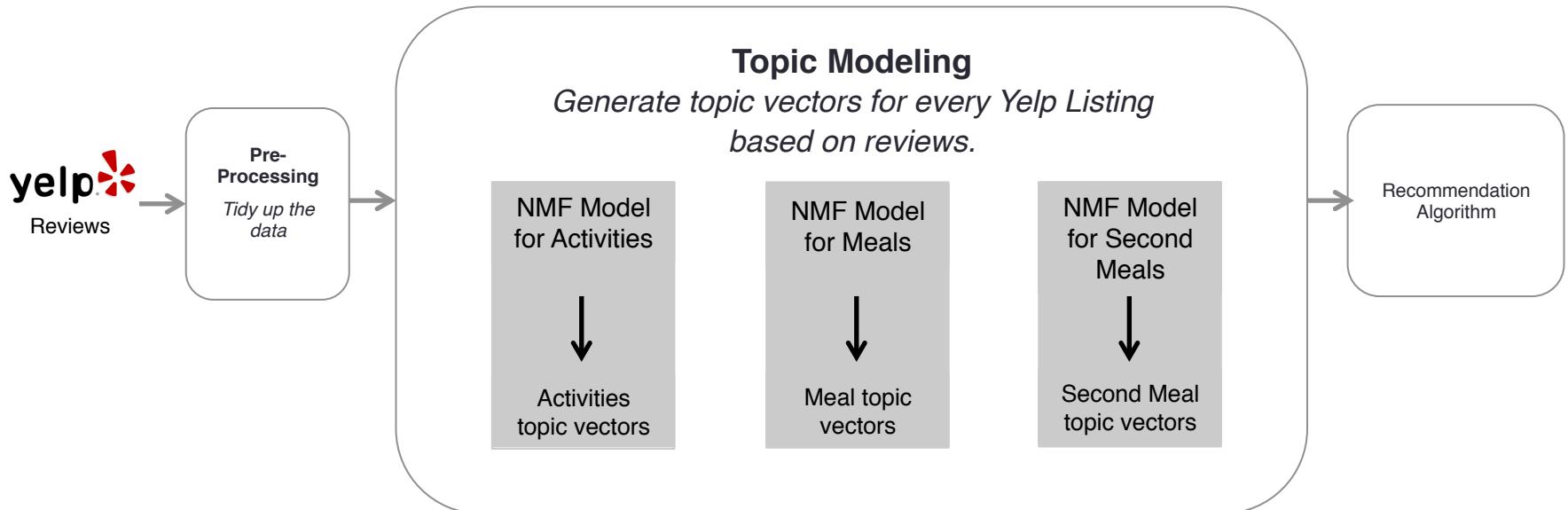


Data Pre-Processing



Stop Words
Lemmatization

Topic Modeling



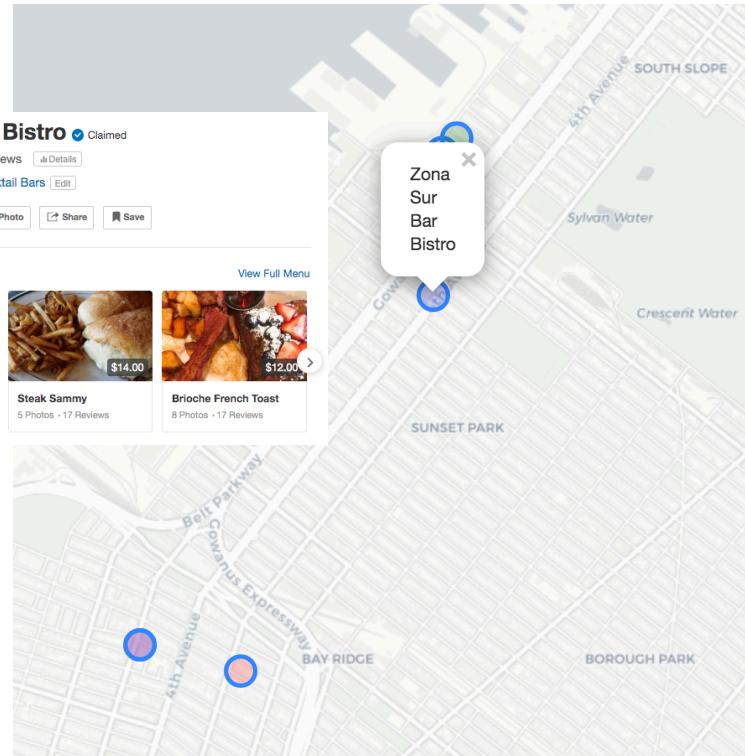
CountVectorizer
Non-Negative Matrix Factorization (NMF)

The Recommendation Algorithm

$$1 \times \cancel{4} \text{ Cosine Similarity} + \frac{1}{2} \times \star \text{ Star Rating} = \text{Recommendation Score}$$

Zona Sur Bar Bistro

User Input:
✓ Italian
✓ Brunch



Zona Sur Bar Bistro • Claimed

★★★★★ 323 reviews [View Details](#)

\$\$ • American (New), Cocktail Bars [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Popular Dishes

[View Full Menu](#)

Dish	Price	Photos	Reviews
Avocado Toast	\$12.00	11 Photos	12 Reviews
Steak Sammy	\$14.00	5 Photos	17 Reviews
Brioche French Toast	\$12.00	8 Photos	17 Reviews

The Recommendation Algorithm

$$1 \times \cancel{4} \text{ Cosine Similarity} + \frac{1}{2} \times \star \text{ Star Rating} = \text{Recommendation Score}$$

The Recommendation Algorithm

Zona Sur Bar Bistro  Claimed

 323 reviews [View Details](#)

\$\$ - American (New), Cocktail Bars [Edit](#)

thai	ramen	chinese	fast food	curry	viet	seafood	bbq	sushi	mexican	italian	brunch	korean	greek
0.01	0.01	0.13	0.06	0.01	0.01	0.06	0.01	0.01	0.58	0.17	1.2	0.21	0.66

The Recommendation Algorithm

Zona Sur Bar Bistro  Claimed

 323 reviews [View Details](#)

\$\$ - American (New), Cocktail Bars [Edit](#)

thai	ramen	chinese	fast food	curry	viet	seafood	bbq	sushi	mexican	italian	brunch	korean	greek
0.01	0.01	0.13	0.06	0.01	0.01	0.06	0.01	0.01	0.58	0.17	1.2	0.21	0.66

brunch	greek	mexican	korean	italian	chinese
1.2	0.66	0.58	0.21	0.17	0.13

The Recommendation Algorithm

Zona Sur Bar Bistro  Claimed

 323 reviews [Details](#)

\$\\$ - American (New), Cocktail Bars [Edit](#)

thai	ramen	chinese	fast food	curry	viet	seafood	bbq	sushi	mexican	italian	brunch	korean	greek
0.01	0.01	0.13	0.06	0.01	0.01	0.06	0.01	0.01	0.58	0.17	1.2	0.21	0.66
0	0	0	0	0	0	0	0	0	0	1	1	0	0

User input

The Recommendation Algorithm

Zona Sur Bar Bistro  Claimed

 323 reviews 

\$\$ · American (New), Cocktail Bars 

thai	ramen	chinese	fast food	curry	viet	seafood	bbq	sushi	mexican	italian	brunch	korean	greek
0.01	0.01	0.13	0.06	0.01	0.01	0.06	0.01	0.01	0.58	0.17	1.2	0.21	0.66
0	0	0	0	0	0	0	0	0	0	1	1	0	0

User input


Cosine Similarity = 0.71

The Recommendation Algorithm

$$1 \times \cancel{4} \text{ Cosine Similarity} + \frac{1}{2} \times \star \text{ Star Rating} = \text{Recommendation Score}$$

The Recommendation Algorithm

Zona Sur Bar Bistro Claimed

★★★★★ 323 reviews [View Details](#)

\$\$ - American (New), Cocktail Bars [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Popular Dishes



Avocado Toast
11 Photos · 12 Reviews



Steak Sammy
5 Photos · 17 Reviews



Brioche French Toast
8 Photos · 17 Reviews

[View Full Menu](#)

Aria Wine Bar Claimed

★★★★★ 391 reviews [View Details](#)

\$\$ - Italian, Wine Bars [Edit](#)

[Write a Review](#) [Add Photo](#) [Share](#) [Save](#)

Popular Dishes



Lamb Chops
5 Photos · 12 Reviews



Octopus Salad
8 Photos · 11 Reviews



Black Truffle Gnocchi
6 Photos · 11 Reviews

[View Full Menu](#)

Cosine Similarity

0.71

0.73

Star Rating

4

3.5

Recommendation Score

1.11

1.08



Let's explore New York City!

Select a Neighborhood to Explore:



Select 1 - 3 areas that interest you in each category (Activity, Meal, Second Meal):

Activity:

Hair

Food

Spas

Museums and Art

Tours and Learning New Things

Meal:

Thai

Ramen

Chinese

American

Curry

Second Meal:

Milkshakes

Chips, Guac, and Margs

Oysters

Cake and Pie

Dumplings

Would love to connect

Jacqueline Kuo

 jackuo14@gmail.com

 github.com/jackuo

 linkedin.com/in/jackuo