



LetsEat

FINAL PRESENTATION

Zach Bloomstein, Max Englander, Don Kim,
Sarah Stevens

THE ISSUE

"I don't care, I just don't want Italian food."

"It's so difficult for everyone to agree on a restaurant."

"We can't figure out where to eat, it is too hard to decide."

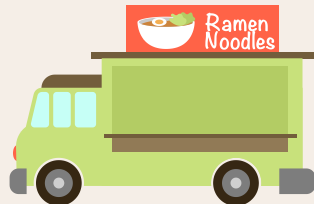
"There's too many options on Yelp and Google."



THE SOLUTION

LetsEat is a restaurant recommendation application that utilizes machine learning to quickly generate a single personalized recommendation based your input

**WE MAKE
THE
DECISION
FOR YOU!**



Discover your
new favorite
restaurants.

Discover Now >

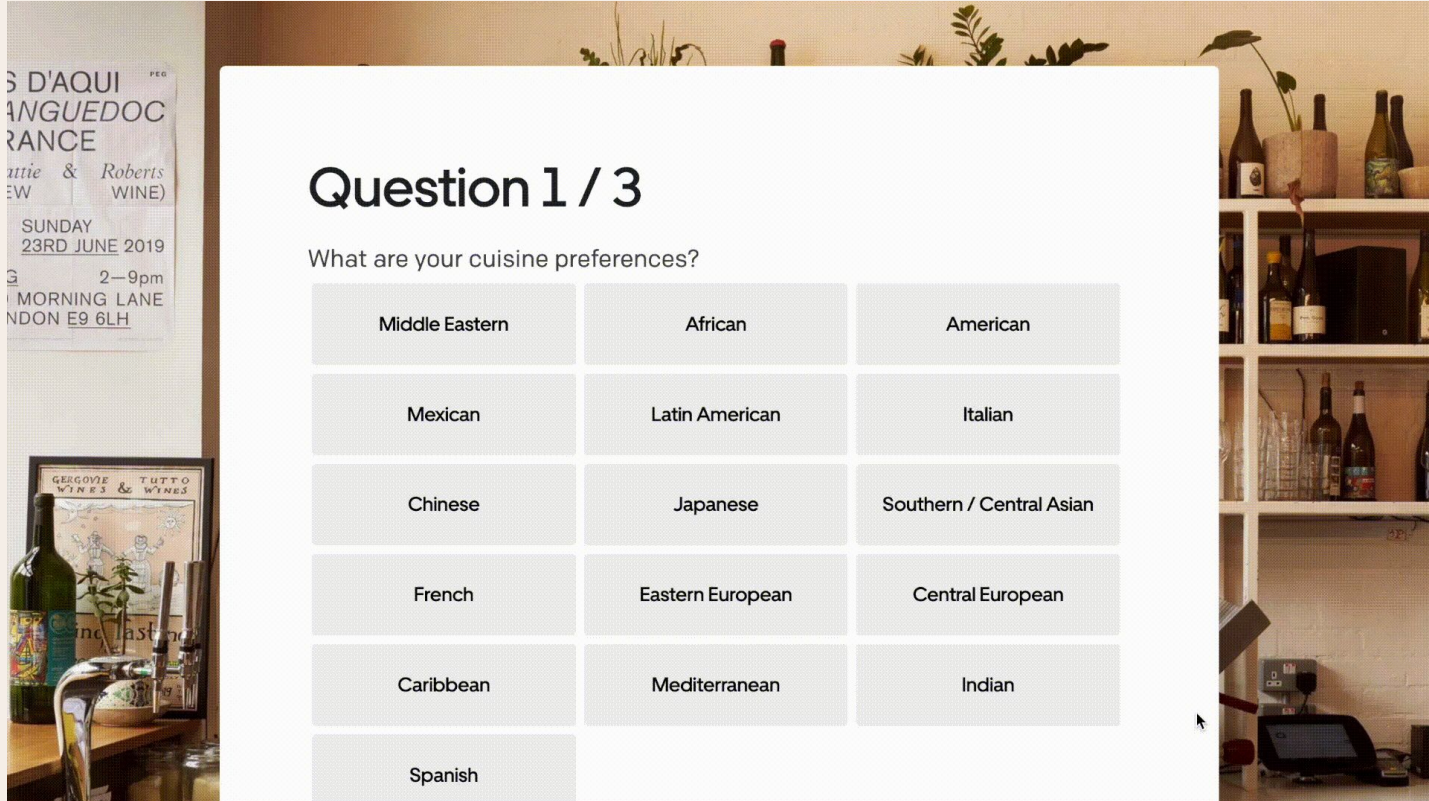
“LetsEat provides personalized restaurant recommendations
using a unique machine learning algorithm”

We match your preferences and
restrictions to restaurants for you

Free to use platform that saves you time deciding on



Create a New Profile



Question 1 / 3

What are your cuisine preferences?

Middle Eastern	African	American
Mexican	Latin American	Italian
Chinese	Japanese	Southern / Central Asian
French	Eastern European	Central European
Caribbean	Mediterranean	Indian
Spanish		

Search

LetsEat

Dashboard

Group

Profile

Sign Out

Begin your search for restaurants near you

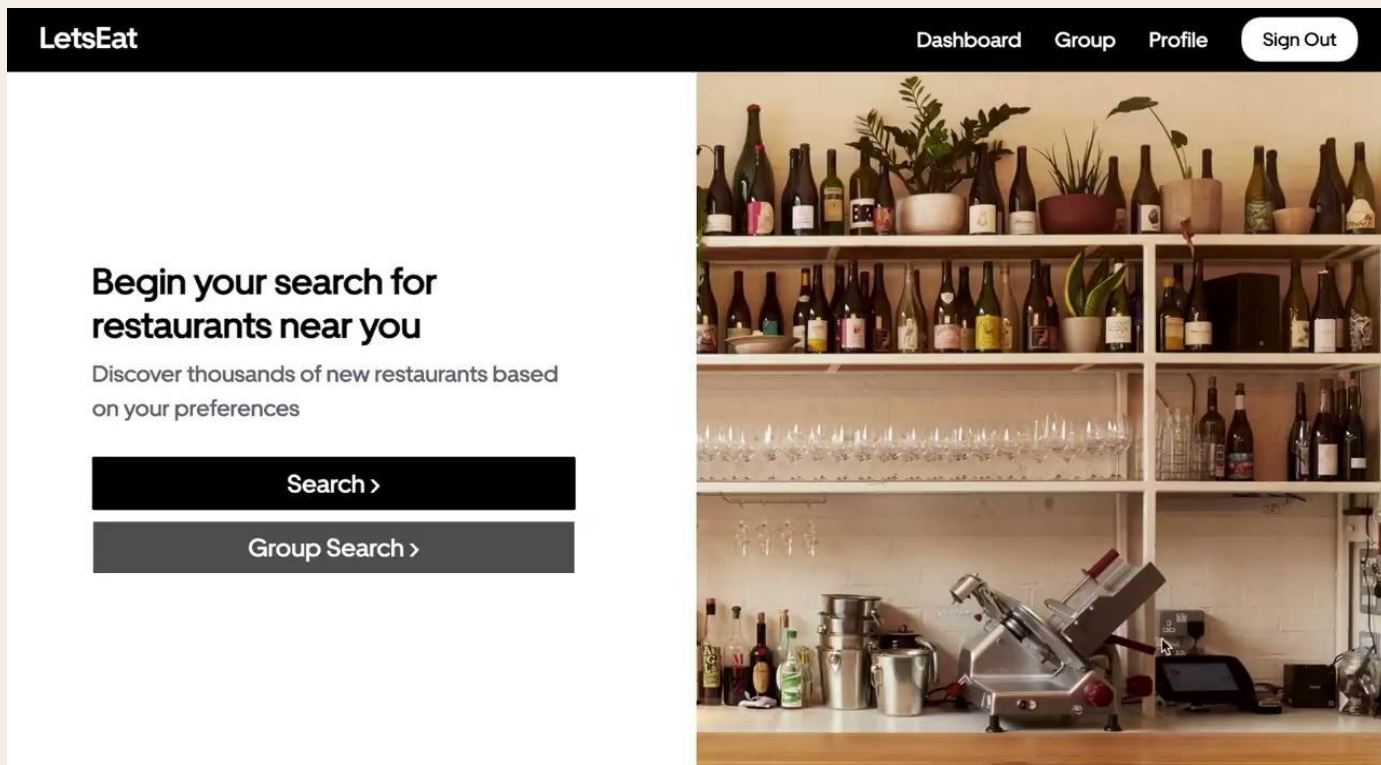
Discover thousands of new restaurants based
on your preferences

Search >

Group Search >



Group Search





How Do We Generate Recommendations?

Machine Learning!

But how does our machine learning algorithm
learn what recommendations to give?



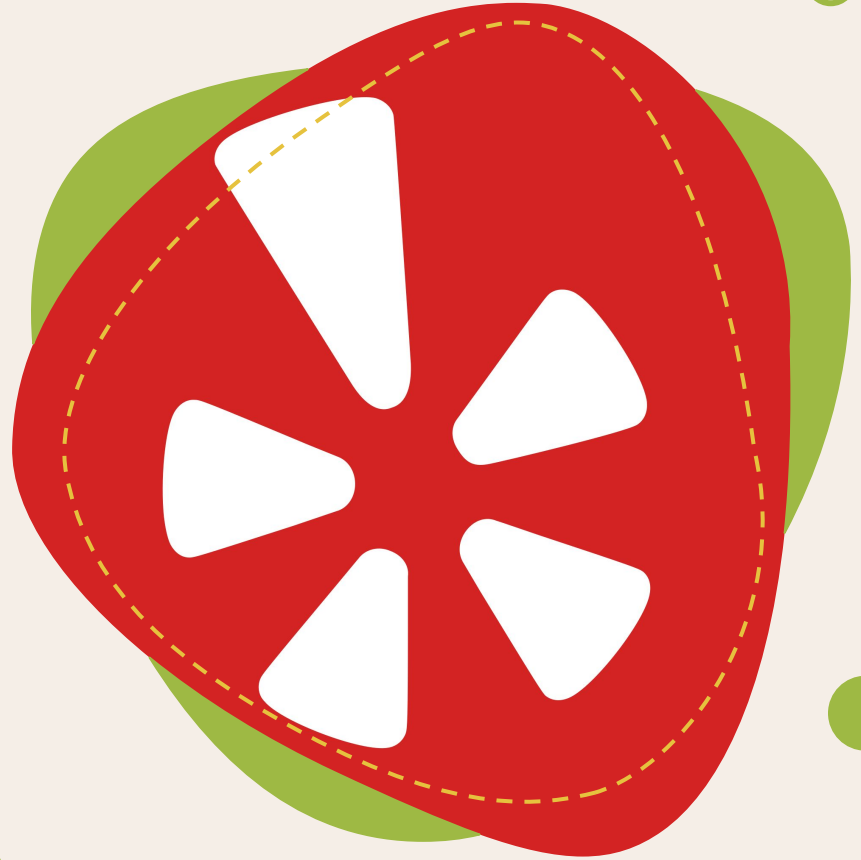
01

Where / How Are We Getting the Data?

BACKEND

Yelp Fusion API


- Restaurant Name
- Restaurant Location
- Restaurant Price Range
- Restaurant Cuisine Type
- Restaurant Hours



Stored in MySQL

Web Scrapping Algorithm

Selenium Webdriver

- Scrapes restaurant webpages and reviews
- Sentiment Analysis on Reviews
- Offload to AWS Lambda 

<input checked="" type="checkbox"/> Accepts Apple Pay	<input checked="" type="checkbox"/> Classy
<input checked="" type="checkbox"/> Loud	<input checked="" type="checkbox"/> Casual Dress
<input checked="" type="checkbox"/> Good for Groups	<input checked="" type="checkbox"/> Good For Kids
<input checked="" type="checkbox"/> Good for Dinner	<input checked="" type="checkbox"/> Garage Parking, Street Parking, Private Lot Parking
<input checked="" type="checkbox"/> Waiter Service	<input checked="" type="checkbox"/> Free Wi-Fi
<input checked="" type="checkbox"/> Best nights on Friday, Saturday, Sunday	<input checked="" type="checkbox"/> Full Bar
<input checked="" type="checkbox"/> TV	<input checked="" type="checkbox"/> Women-owned
<input checked="" type="checkbox"/> No Outdoor Seating	<input checked="" type="checkbox"/> Offers Catering

 **Good for
Dinner,
Classy** 



 **good time,
date night,
friends** 



02

How is the Data Used to Make Recommendations?

BACKEND

The Answer: Machine Learning

User and Restaurant Data

Takes user answers and restaurant features



Matches the users and restaurants



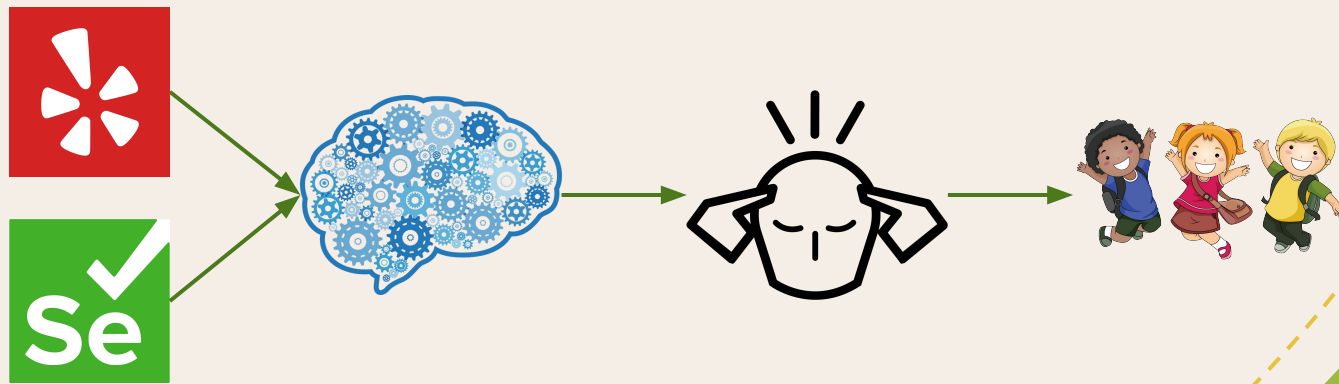
Delivers recommendation based on model training

Algorithm Learns Based on User Activity

*Collaborative
Filtering*



Recommendation Process





Recommendation Accuracy



Accuracy



91.7%

Precision



92.4%

Recall



99.1%



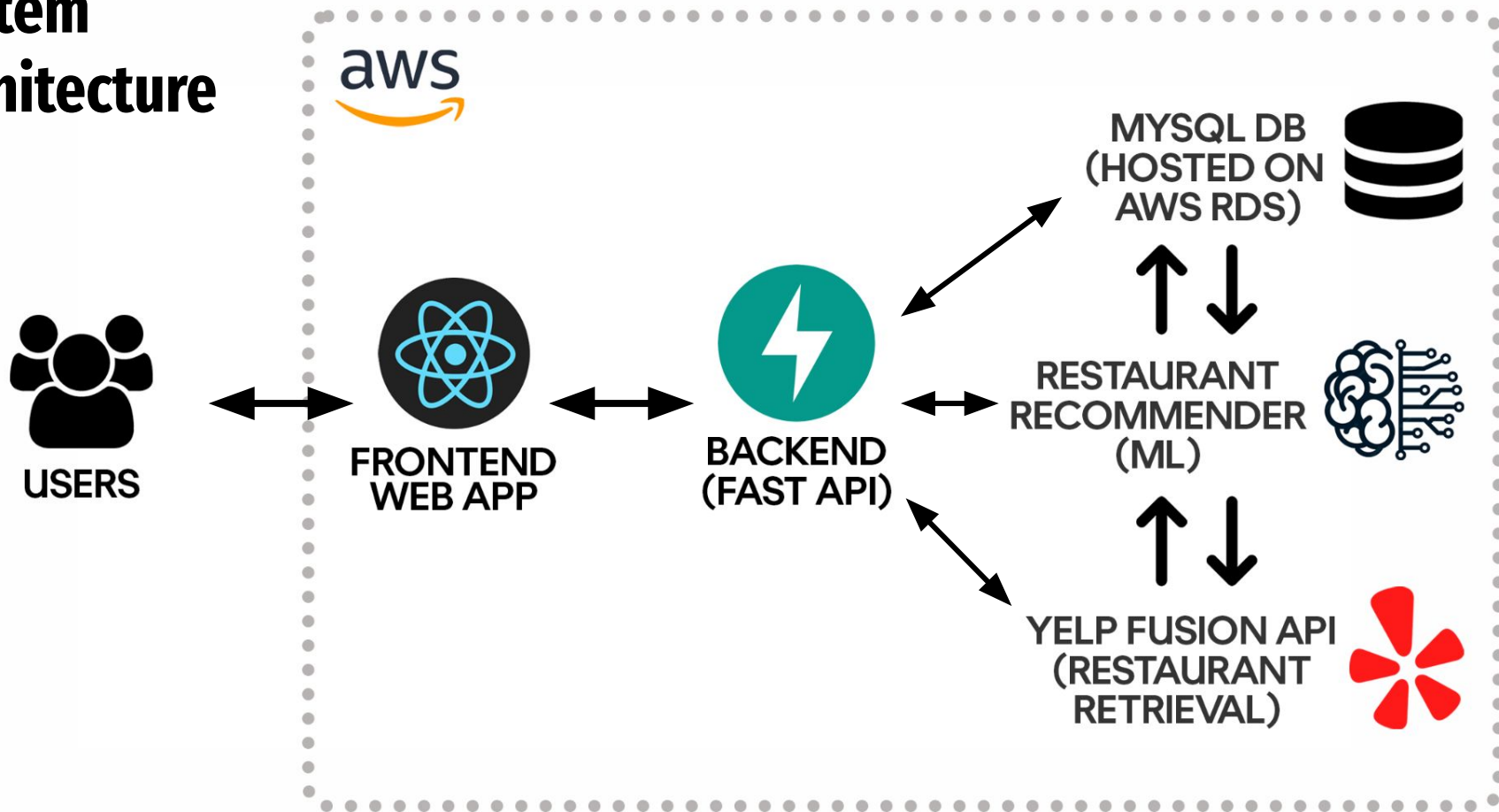


03

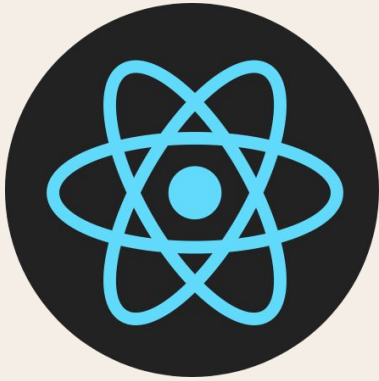
PUTTING IT TOGETHER

FRONTEND & BACKEND

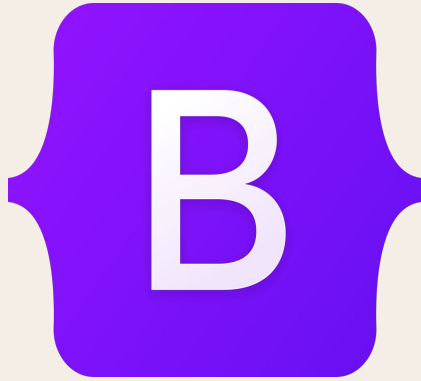
System Architecture



FRONTEND LIBRARIES



REACT



BOOTSTRAP



CSS

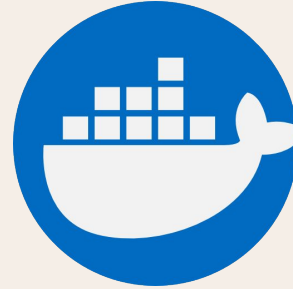
BACKEND LIBRARIES



FastAPI



MySQL



Docker



EC2/RDS

Use LetsEat!

LetsEat

Dashboard

Group

Profile

Sign Out

Begin your search for restaurants near you

Discover thousands of new restaurants based
on your preferences

Search >

Group Search >





THANKS!

Do you have any questions?

corn0zmds@gmail.com

<https://menglander2019.github.io/LetsEat-Dev/website/index.html>

