

FoodDIS

Food.com Data, Information and Search

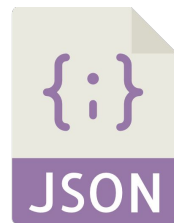
Project Milestone 2
PRI@FEUP - 2021/2022
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Our data

kaggle[™]
Food.



Solr 



Collection

- Using a single **recipes** collection
- Each document is a recipe:
 - Recipe information
 - Author name and ID
 - Reviews

- **Most relevant fields:**

Name, Description, Category, Keywords, Ingredients, Author Name, nutritional content, time, Date, Reviews

```
{
  "RecipeId":10168,
  "Name":"Potato and Pea Curry",
  "AuthorId":9869,
  "CookTime":1800,
  "PrepTime":900,
  "TotalTime":2700,
  "Date":"2001-07-12T00:00:00Z",
  "Description":"Make and share this Potato and Pea Curry recipe
from Food.com.",
  "Category":"Potato",
  "Keywords":["Vegetable", "Low Protein", ...],
  "Ingredients":["potatoes", "mustard seeds", ...],
  "AggregatedRating":5.0,
  "ReviewCount":3,
  "Calories":258.6,
  "FatContent":7.3,
  "SaturatedFatContent":4.1,
  ...,
  "ProteinContent":6.4,
  "Servings":4,
  "Instructions":["Cut potatoes into 2 cm cubes.", "Heat mustard
seeds in a large pan until they start to pop.", ...],
  "URL":"https://www.food.com/recipe/potato-and-pea-curry-10168",
  "AuthorName":"Evie3234",
  "Reviews":["{5 stars, dimensionally trans} Excellent! I was
looking for a curried potato recipe that wasn't too liable to burn or
require pre-cooking. This worked perfectly but I increased the spice to
match my taste.", ...],
  "id":"885e5179-bd7c-4e00-9366-028334c32e51",
  "_version_":1718969090863792128
},
```



Indexing



title custom field type

- > Text field
- > **Tokenizer:** *StandardTokenizerFactory*
- > **Filters:**
 - *ASCIIFoldingFilterFactory*
 - *EnglishMinimalStemFilterFactory*
 - *LowerCaseFilterFactory*
 - *EdgeNGramFilterFactory*
(index analyser only)

Type	Fields	Indexed
<i>title</i>	Name, Category	Yes
<i>date</i>	Date	
<i>text_en</i>	Description, Keywords, Ingredients, Yield, Instructions, AuthorName, Review	
<i>integer</i>	ReviewCount, Servings, IDs, Times	
<i>float</i>	AggregatedRating, Calories, Nutritional Contents	
<i>uiString</i>	Images, URL	No



Queries: a few examples

Information Need 1



Maria, 35

My freezer is full of chicken that my mother insisted I took from her. Now I have to eat it but I'm out of ideas! Let's see if **FooDIS** can give me some inspiration for **chicken dishes**.



Information Need 1: Results

Regular query

q: chicken

qf: Name Description Category
Keywords Ingredients Instructions

Boosted query

q: chicken

qf: Name¹⁰ Description
Category² Keywords Ingredients
Instructions²

Regular	Boosted
Chicken Cacciatore	Chicken Cacciatore
Awesome Garlic Wings	Hot <u>Chicken</u> Sandwiches
Tom Kha Gai, Thai Coconut Chicken Soup!	Grilled Chicken Fettuccine
Grilled Chicken Fettuccine	Baked Rice and Chicken
Feta Topped Broiled Chicken	Feta Topped Broiled Chicken



Information Need 1: Evaluation

Regular query

q: chicken

qf: Name Description Category
Keywords Ingredients Instructions

Recall: 1

P@10: 1
AP: 1

Boosted query

q: chicken

qf: Name¹⁰ Description
Category² Keywords Ingredients
Instructions²

Recall: 1

P@10: 1
AP: 1

Information Need 1: Evaluation

Regular query

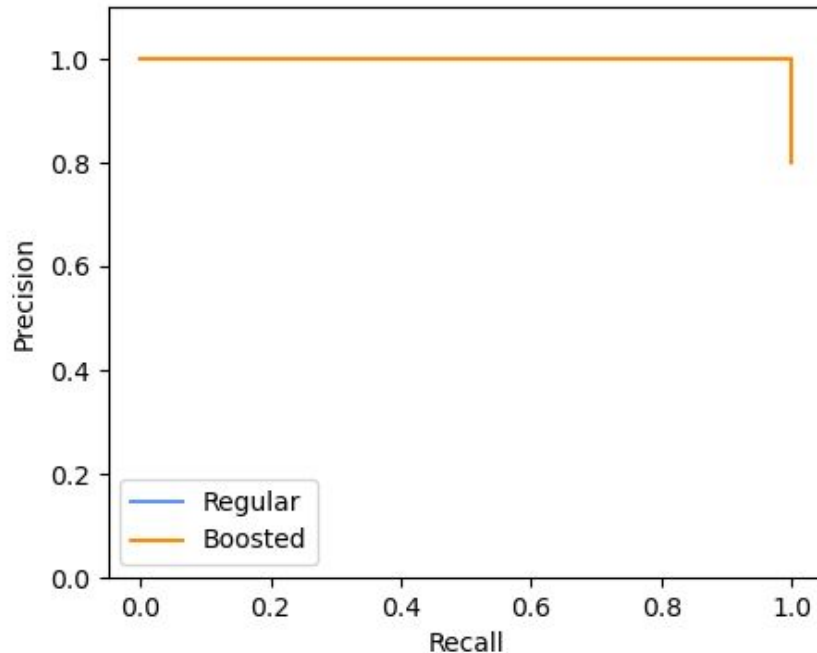
q: chicken

qf: Name Description Category
Keywords Ingredients Instructions

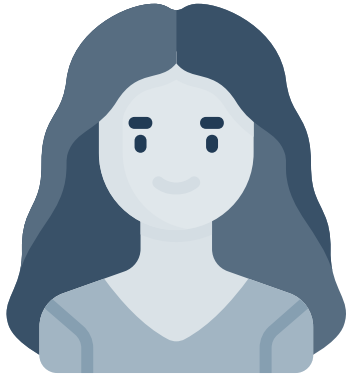
Boosted query

q: chicken

qf: Name¹⁰ Description
Category² Keywords Ingredients
Instructions²



Information Need 2



Sally, 21

I just moved into a new apartment and I'm starving!
I need to cook something up but I don't have all my
kitchen utensils yet..
I wonder if **FoodIS** can help me find **recipes that only
require a small bowl?**



Information Need 2: Results

Regular query

q: small bowl

qf: Name Description Instructions

Boosted query

q: small bowl

qf: Name DescriptionInstructions

pf: Instructions^5

ps: 4

Regular	Boosted
Pear Gingerbread	Dill Pickle Soup
Potato Soup & Smoked Salmon Relish With Crispy Brie Crouton	Delicious, Easy, Restaurant-Quality Eggplant
Deep-Dish Peach Pie	Feta Topped Broiled Chicken
Strawberries and Cream Salad Dressing	Breakfast Egg Nests



Information Need 2: Evaluation

Regular query

q: small bowl

qf: Name Description Instructions

Recall: 1

P@10: 0.6

AP: 0.63

Boosted query

q: small bowl

qf: Name DescriptionInstructions

pf: Instructions^5

ps: 4

Recall: 1

P@10: 0.7

AP: 0.89

Information Need 2: Evaluation

Regular query

q: small bowl

qf: Name Description Instructions

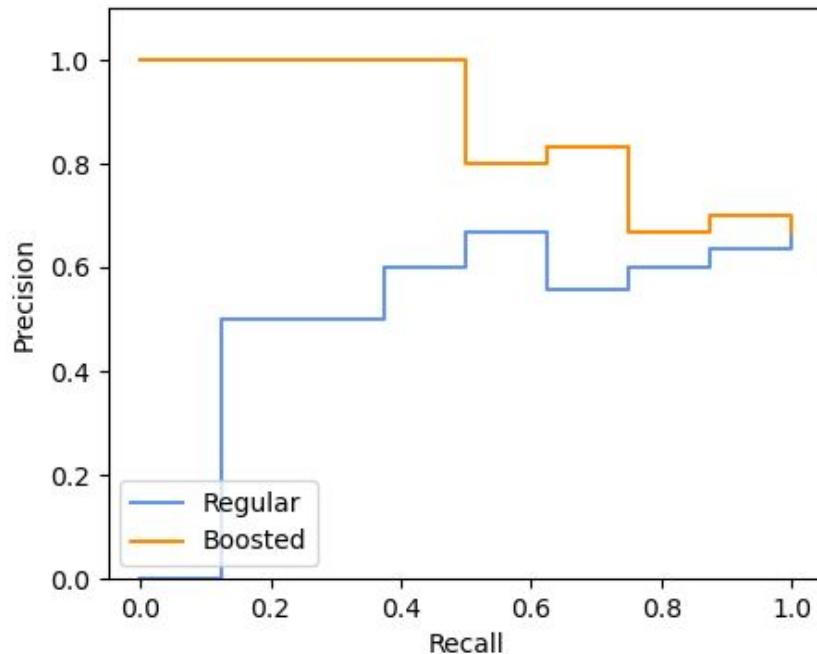
Boosted query

q: small bowl

qf: Name DescriptionInstructions

pf: Instructions⁵

ps: 4



Information Need 3: Information Need



Ron, 17

I'm terrible at cooking but I promised my best friend I would bring something to eat at her birthday party. I have to find **easy recipes**! But I don't want to take the author's word for it, I trust the **reviewer community**.



Information Need 3: Results

Regular query

q: easy to make
qf: Reviews

Boosted query

q: easy to make
qf: Reviews
pf: Reviews⁵
ps: 3

Regular	Boosted
Dill Pickle Soup	Dill Pickle Soup
Pale Tigers Butter	Shipwreck Ground Beef Stew for the Crock Pot
Shipwreck Ground Beef Stew for the Crock Pot	Tater Tot Casserole
Tater Tot Casserole	Chicken Cacciatore
Chicken Cutlet Parmesan With Tomato Sauce	Pale Tigers Butter



Information Need 3: Evaluation

Regular query

q: easy to make
qf: Reviews

Recall: 1

P@10: 0.9
AP: 0.83

Boosted query

q: easy to make
qf: Reviews
pf: Reviews⁵
ps: 3

Recall: 1

P@10: 0.9
AP: 0.9

Information Need 3: Evaluation

Regular query

q: easy to make

qf: Reviews

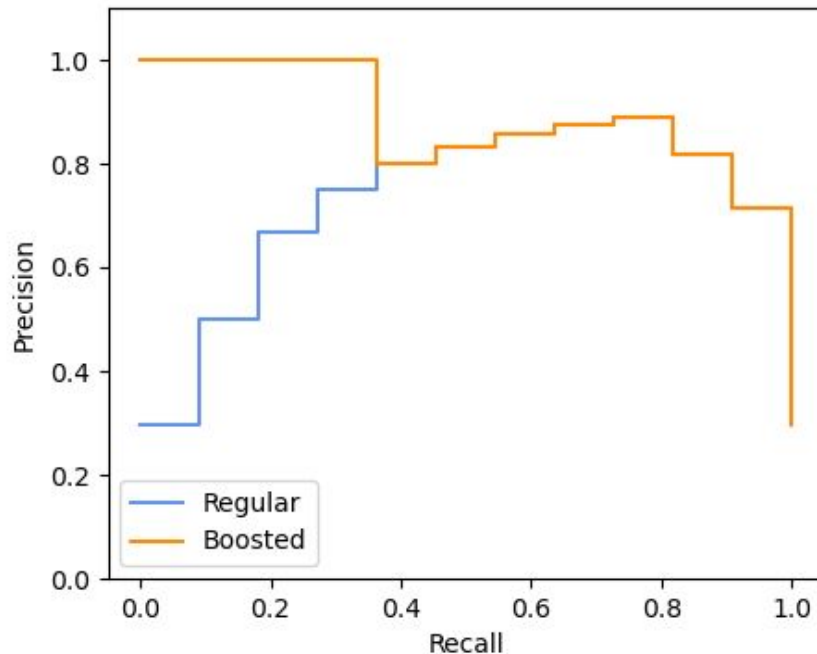
Boosted query

q: easy to make

qf: Reviews

pf: Reviews⁵

ps: 3



Questions?

