



NEW BAKERY IN HAUT-DE-SEINE

IBM Data Science Capstone

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Background

- ◆ BBC reports more French people take sandwich at lunch nowadays
- ◆ French people consume about 10 000 000 baguettes every year
- ◆ 32 000 bakeries in France
- ◆ Great opportunity to open a new bakery

Business Problem

- ✓ Area Preferences: Haut-de-Seine
- ✓ Target Market: Local people preferring high quality food
- ✓ Product Variety: Pastry, Sandwich, Baguette, etc
- ✓ Competition: As less as possible

Data Selection

- ◆ Neighborhoods in Heut-de-Seine
- ◆ Neighborhoods' Coordinates
- ◆ Resident Numbers & Incoming for potential clients
- ◆ School venues, Office venues for potential clients
- ◆ Bakery venues to check competition

Methodology

- ◆ Collect list of neighborhoods by parsing Wikipedia page with BeautifulSoup API
- ◆ Convert address to coordinates with GeoPy
- ◆ Pre-select candidates based on Resident Number and Incoming using Panda library
- ◆ Fetch Bakery venues, School venues and Office venues with Foursquare API
- ◆ Score the pre-selected neighborhoods with the weighted sum of Bakery number, School number, Office number and Resident number

Results

Postal Code	Neighbourhood	Resident Number	Incoming	Latitude	Longitude	Office Number	School Number	Bakery Number	Score
27	92063 Rueil-Malmaison	78794	44787	48.877780	2.180283	40	10	5.0	52614.333333
0	92002 Antony	61711	43464	48.753554	2.295942	44	33	10.0	41251.666667
25	92060 Neuilly-sur-Seine	60910	57830	48.884683	2.269566	50	28	48.0	40686.666667

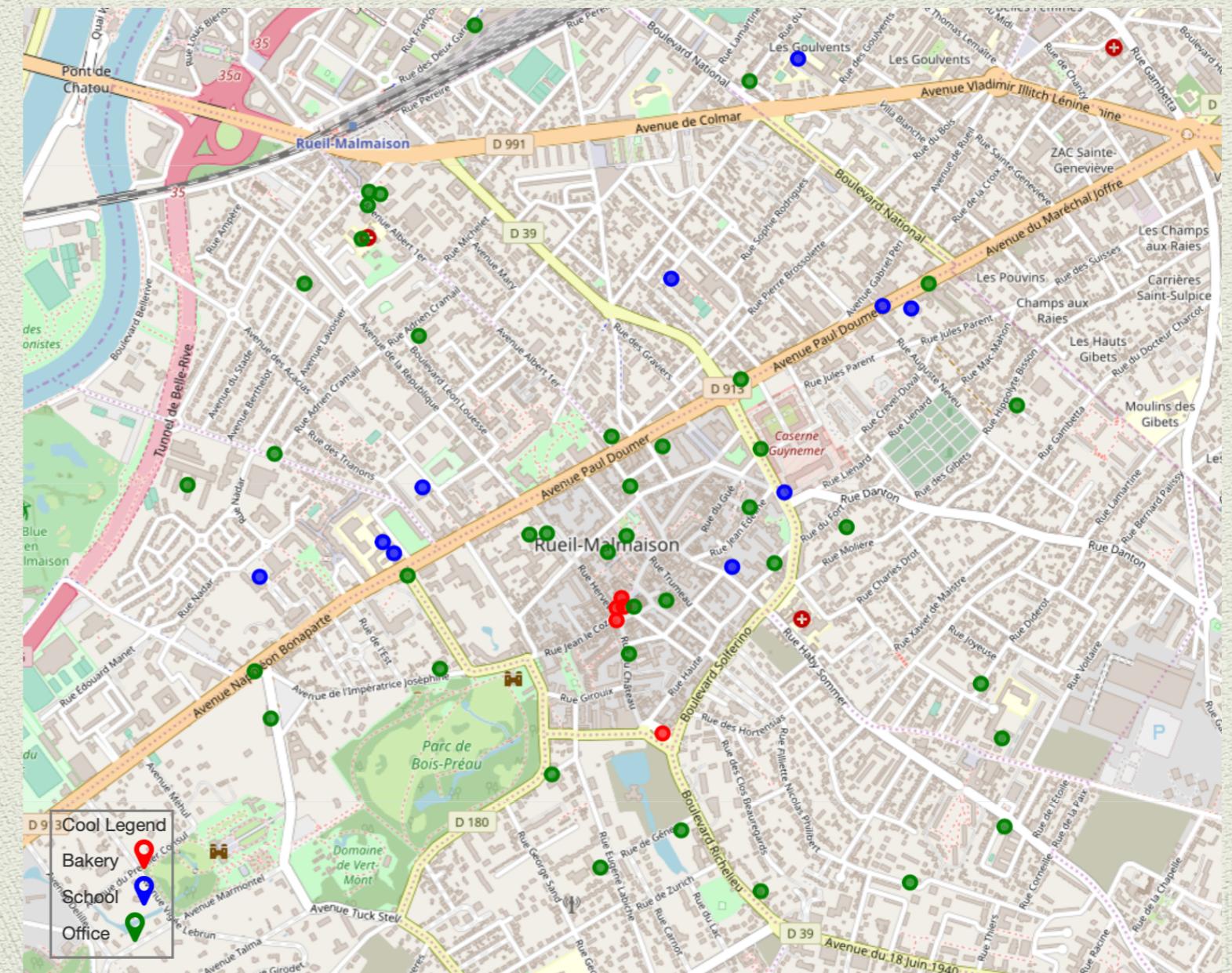
- ◆ Pre-selected candidates:
 - ◆ Antony
 - ◆ Neuilly-sur-Seine
 - ◆ Rueil-Malmaison
- ◆ Final choice: Rueil-Malmaison

Discussions

- ◆ K-Means Cluster could be used to cross check the result of the analysis
- ◆ Other factors like rent could be taken into account for further analysis
- ◆ Weight coefficients could be adjusted for more accurate estimation
- ◆ Project could be continued on the analysis of Rueil-Malmaison to find a more detailed location

Conclusion

- Rueil-Malmaison is our recommended neighborhood for the new bakery
- More factors like rent should be taken into account for final decision



شکرا جزیلاً

A large, colorful word cloud centered around the words "thank you" in various languages. The word "thank you" is repeated in many different scripts and colors (red, green, blue, yellow, etc.). Surrounding these central words are numerous other words from different languages, each with its corresponding translation below it. The languages include English, Spanish, French, German, Italian, Portuguese, Dutch, Swedish, Danish, Polish, Czech, Russian, Chinese, Japanese, Korean, Thai, Indonesian, Vietnamese, and many others. The overall effect is a dense, multilingual collage of gratitude.