## Zurich: To Jazz or Not to Jazz

Finding the ideal areas in Zurich for a new jazz bar



## Zurich: a cultural city

• Music scene very active, but

very few jazz bars!

→ good innovative concept for a new bar

#### Zurich: a cultural city

- Need a good area to start a jazz bar
- Criteria
  - Popular & lively area
  - Not too many existing bars
  - Inexpensive rent
  - Proximity to the University of Arts to attract young jazz musicians

#### Overview of procedure

- Get data
  - Geospatial data for boudaries of the districts of Zurich
    - Swiss Confederation webpage
       https://data.geo.admin.ch/ch.swisstopo.swissboundaries3d-bezirk-flaeche.fill/
    - or, alternatively, from OpenStreetMap

- Mean rent per district
  - Zurich city webpage

https://www.stadt-zuerich.ch/prd/de/index/statistik/themen/bauen-wohnen/mietpreise/mietpreise-strukturerhebung.html

#### Overview of procedure

• Segment Zurich city into small circular areas

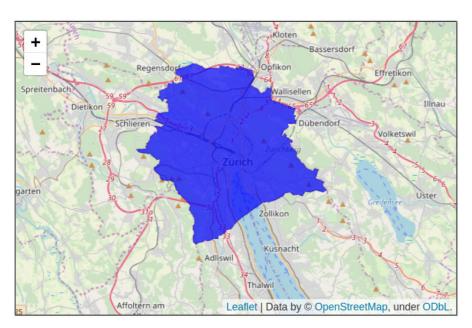
Radius of 800 m

• Use k-means clustering algorithm

Find the popular areas for hanging out

Use the criteria defined before to further narrow down areas

# Data acquisition & cleaning



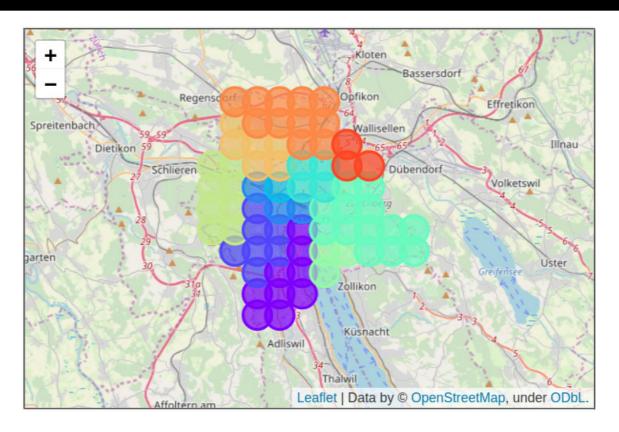
Zurich city



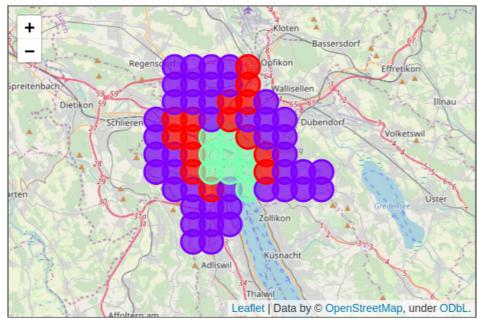
District 4

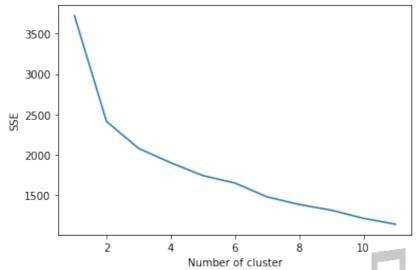
Boundary coordinates for Zurich and its districts





- Segment Zurich into small areas
- Colours = differnt districts





k-means clustering
 Unsupervised learning

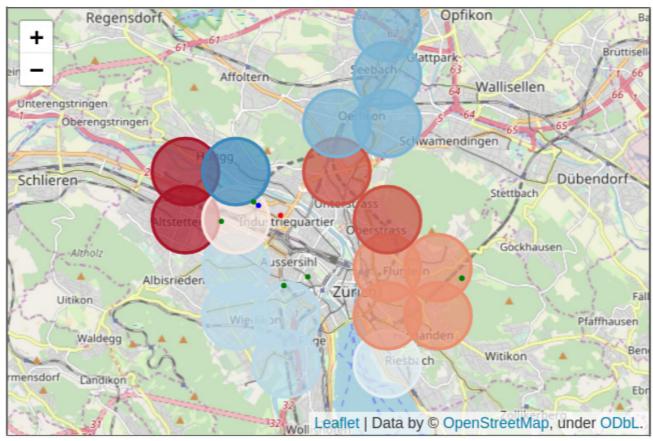
Three clusters
 using elbow method

Choose clusters 1 & 3

They regroup hot venues for hanging out

|    | Neighbourhood | CHF  |
|----|---------------|------|
| 1  | 1             | 29   |
| 2  | 2             | 22.8 |
| 3  | 3             | 23.3 |
| 4  | 4             | 23.4 |
| 5  | 5             | 24.2 |
| 6  | 6             | 23.6 |
| 7  | 7             | 23   |
| 8  | 8             | 25   |
| 9  | 9             | 21.6 |
| 10 | 10            | 22.2 |
| 11 | 11            | 21.1 |
| 12 | 12            | 20.7 |

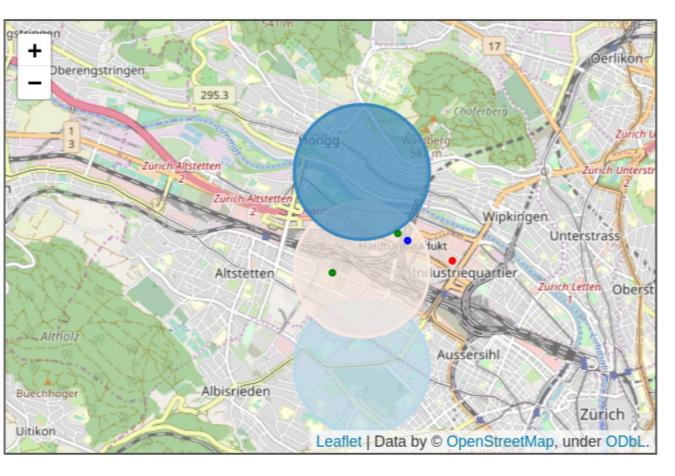
Mean salary per district
 (or neighbourhood depending on the translation!)



Hot areas with less than 5 bars

Blue = cheap Red = expensive

#### Final result



Potential areas for new jazz bar

- near the Uni
- relatively cheap rent
- in hot areas
- far from existing jazz bar
- competition ok

Blue: Uni of Arts (we want it close)

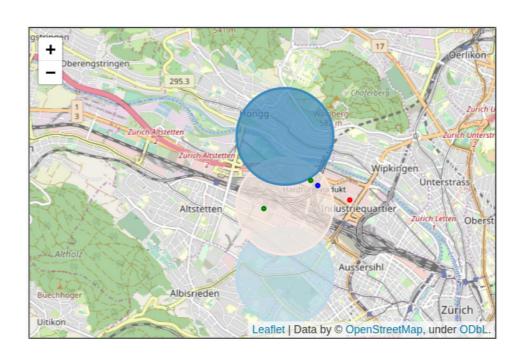
Red: existing jazz bar (we want it far)

Green: music venues (we want them close)

#### Summary

• Found potentially promising areas for a new

jazz bar :)



Could further take into account transportation

## Questions?

Thank you for listening!

Questions?