▸ Find-a-Foodspot

By Michael Chin

Business Problem

- Cambridge, MA is a hot neighborhood rich with college students and young professionals working in the biotech sector

  - Huge demand for a new restaurant

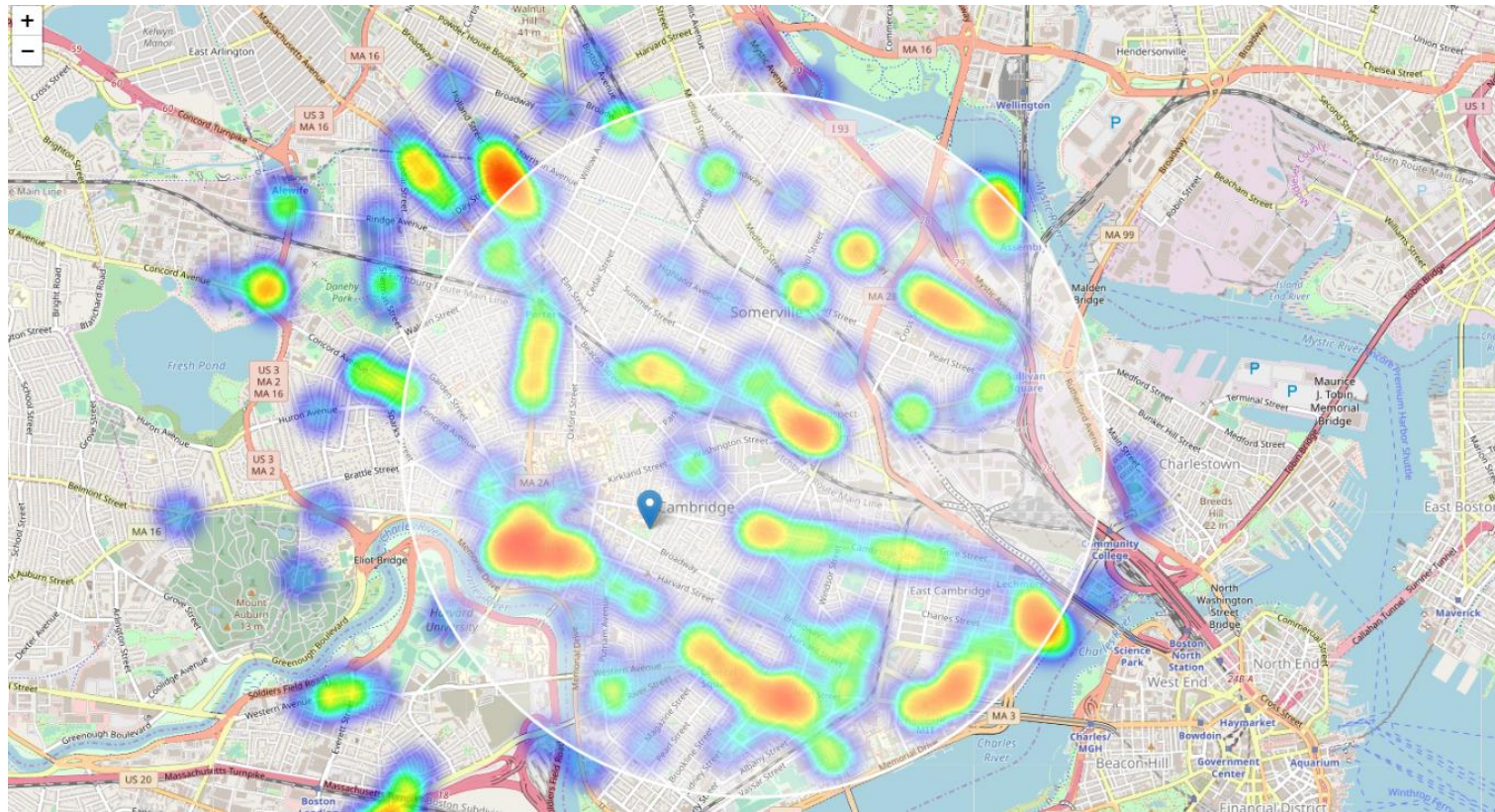- How can we decide on the best spot to open a Chinese restaurant in Cambridge?

Objective

- Find hot zones or spots where a Chinese restaurant in Cambridge could thrive
- Requirements for location:
  - Must not be crowded with restaurants
  - Ideally has no Chinese restaurants in vicinity
  - Prefer as close to Cambridge city center as possible
- Technical Requirements for location:
  - must have no more than 2 restaurants in 250 meter radius
  - must have 0 Chinese restaurants in 400 meter radius

Approach

▶ Cambridge neighborhood and venues are downloaded using Foursquare API

▶ Categorize these venues into restaurants and Chinese restaurants

▶ Create heatmaps to identify areas of low and high restaurant density

▶ Focus attention on areas of low density

▶ Use K-means clustering to cluster locations into candidate zones

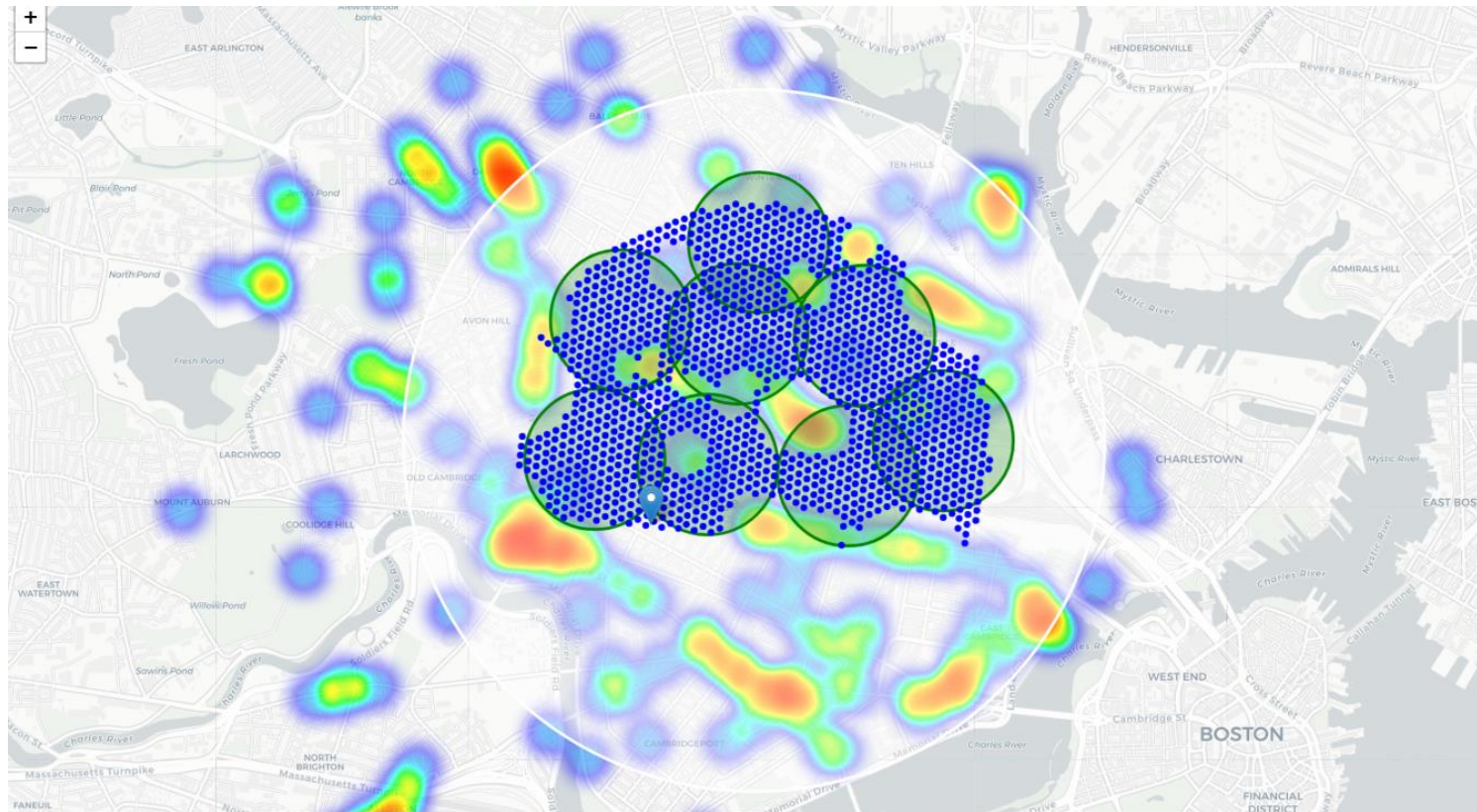▶ Reverse geocode the center of these zones to get final locations for business stakeholders to explore
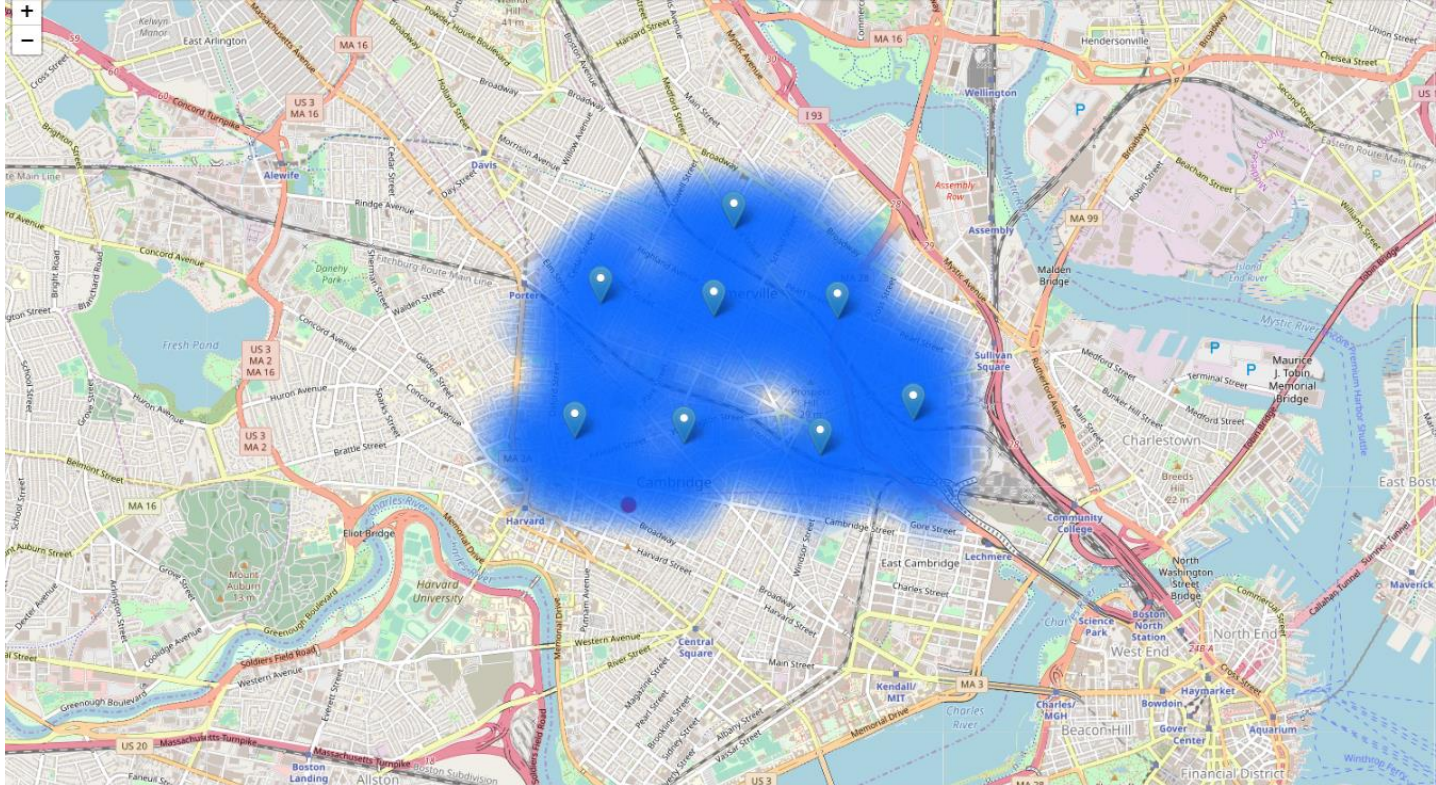
Results:
Heatmap of Restaurant Density in Cambridge

Results:
Clustered Zones of Good Restaurant Location Candidates

Results:
Addresses of Candidate Zone Centers

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Addresses of centers of areas recommended for further analysis
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Address	Distance
35 Merriam St, Somerville, MA 02143, USA	=> 2.2km from Cambridge
44r Craigie St, Somerville, MA 02143, USA	=> 2.2km from Cambridge
7 Divinity Ave, Cambridge, MA 02138, USA	=> 0.9km from Cambridge
19 Aldrich St, Somerville, MA 02145, USA	=> 3.0km from Cambridge
30 Cobble Hill Rd, Somerville, MA 02143, USA	=> 3.2km from Cambridge
39 Avon St, Somerville, MA 02143, USA	=> 2.2km from Cambridge
45 Calvin St, Somerville, MA 02143, USA	=> 0.9km from Cambridge
22 Tennyson St, Somerville, MA 02145, USA	=> 3.2km from Cambridge

Discussion / Future Work

► Successfully identified 8 general zones that could be a good location for a Chinese restaurant due to low restaurant competition

► The 8 provided addresses are good starting points for exploration

► Should explore following factors of each zone:

   ► aesthetic of location (proximity to park or water)

   ► levels of noise / proximity to major roads

   ► real estate availability

   ► price

   ► social/economic dynamic of neighborhood