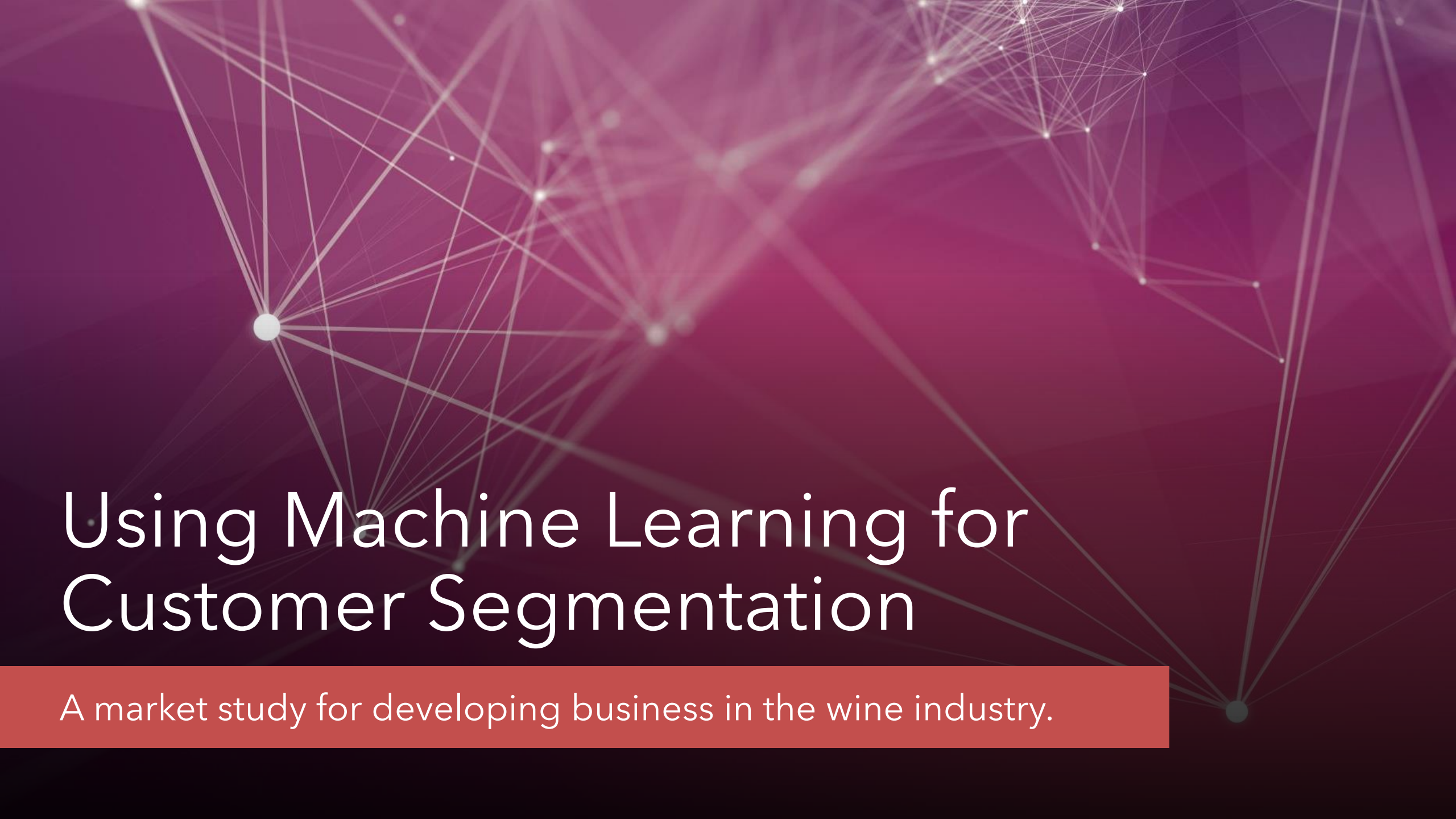


Using Machine Learning for Customer Segmentation

A market study for developing business in the wine industry.

Design

- Geo-location data available for nearly every winery and vineyard on the planet.
- Rich API content from FourSquare.
- Clustering using unsupervised machine learning DBSCAN.

Application

Market development for new territories.

- API calls for dataset from FourSquare.
- Geolocation Data is provided.
- Incorporate Client Data

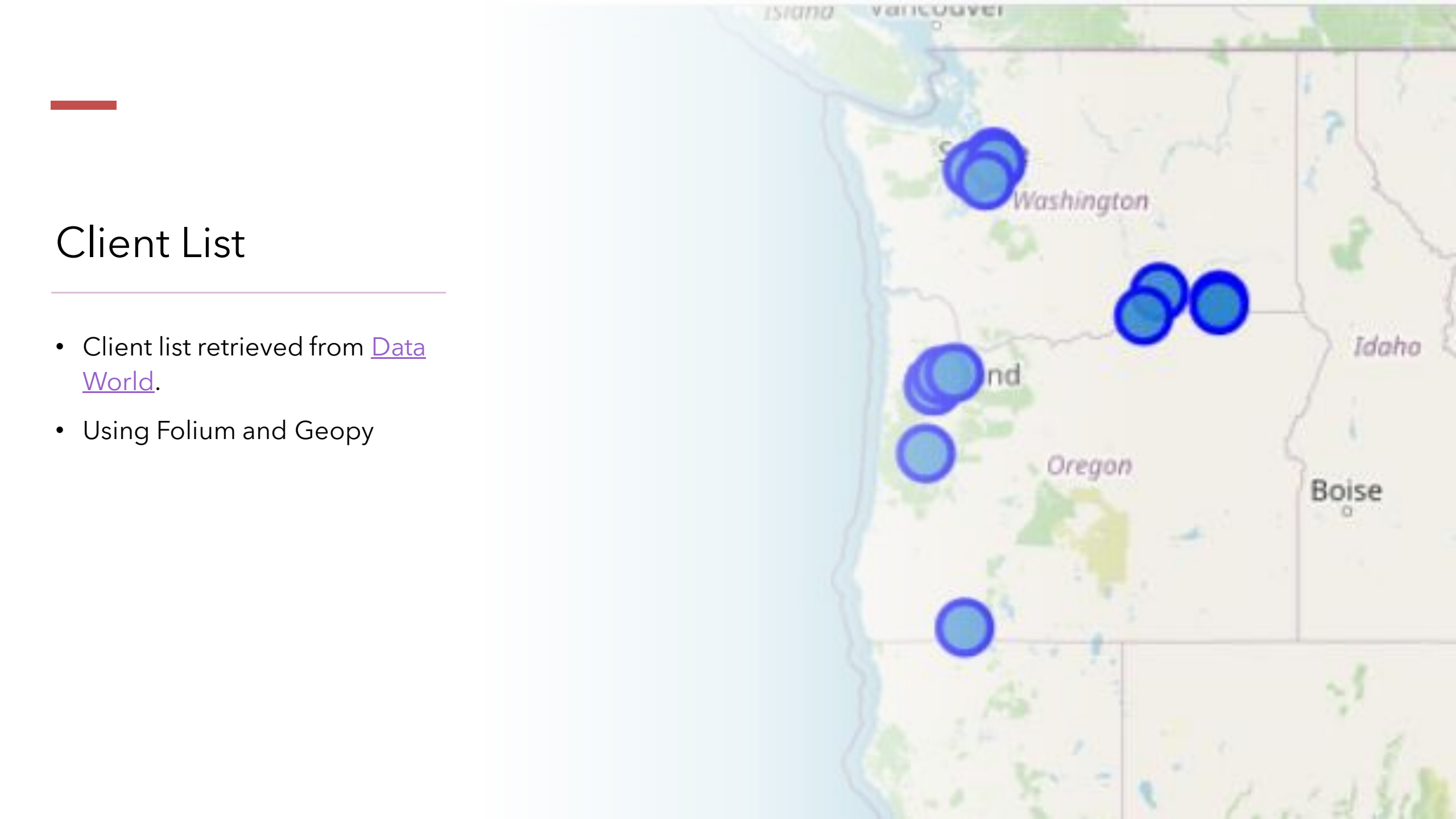
Client Data

- List of client wineries from data center.
- Geolocation and Mapping
- Data needs cleaning.

Winery	State	lng	
14 Hands	WA	-75.114054	-1
Abeja	WA	32.816667	
Academy Wines	OR	-74.249891	4
Amavi Cellars	WA	-122.141754	4
ity Vineyard	OR	-123.174372	4
Animale	WA	-43.110436	-2
Antica Terra	OR	-123.174372	4
chery Summit	OR	-123.047919	4
nd Vineyards	OR	-122.633782	4
ain Vineyard	WA	-119.339468	4
Baer Winery	WA	-122.152370	4
Island Winery	WA	-122.518522	4
arnard Griffin	WA	153.017488	-2
Creek Vineyards	OR	-65.637609	4
Beaux Freres	OR	2.275383	4

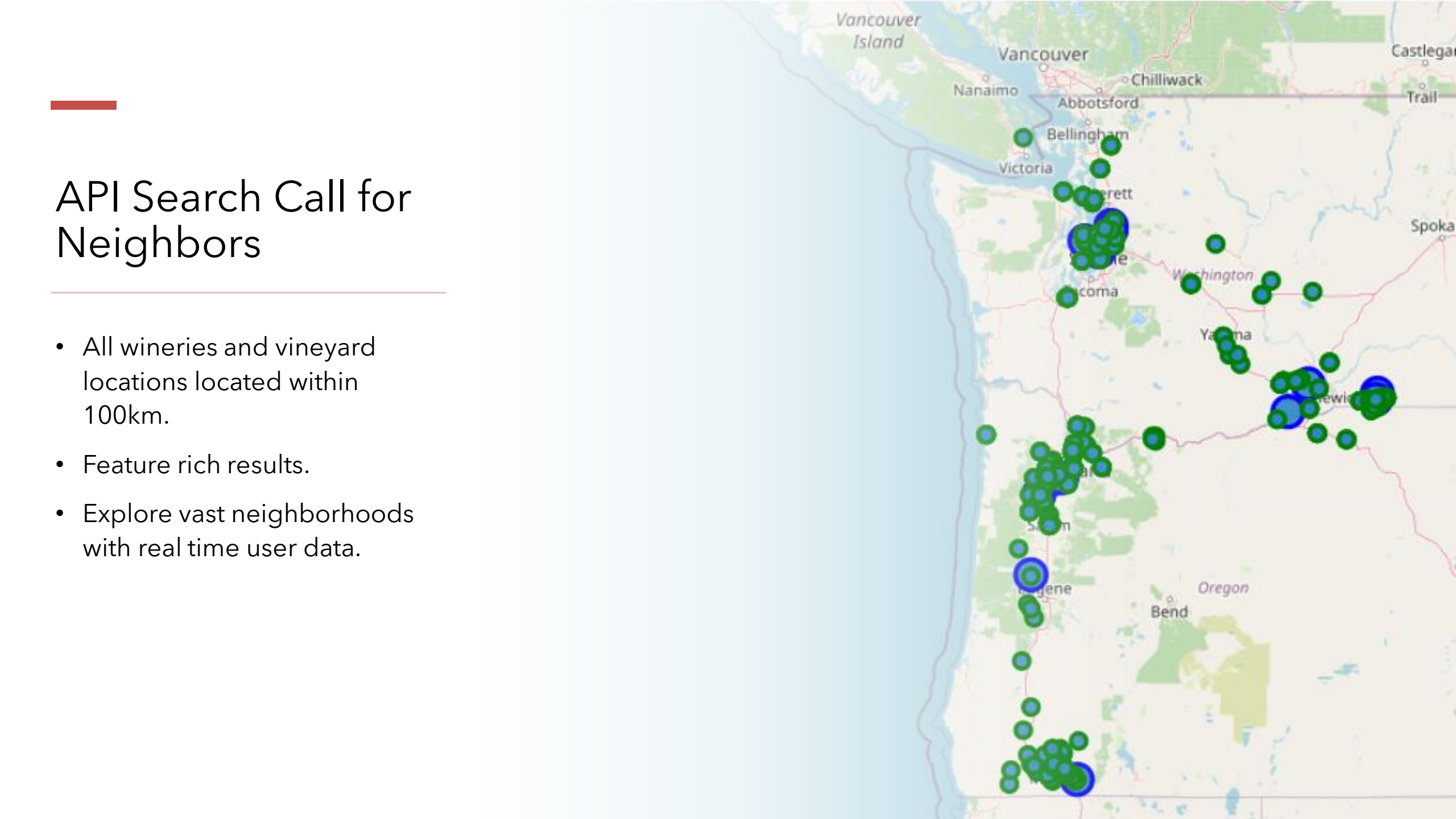
Client List

- Client list retrieved from Data World.
- Using Folium and Geopy



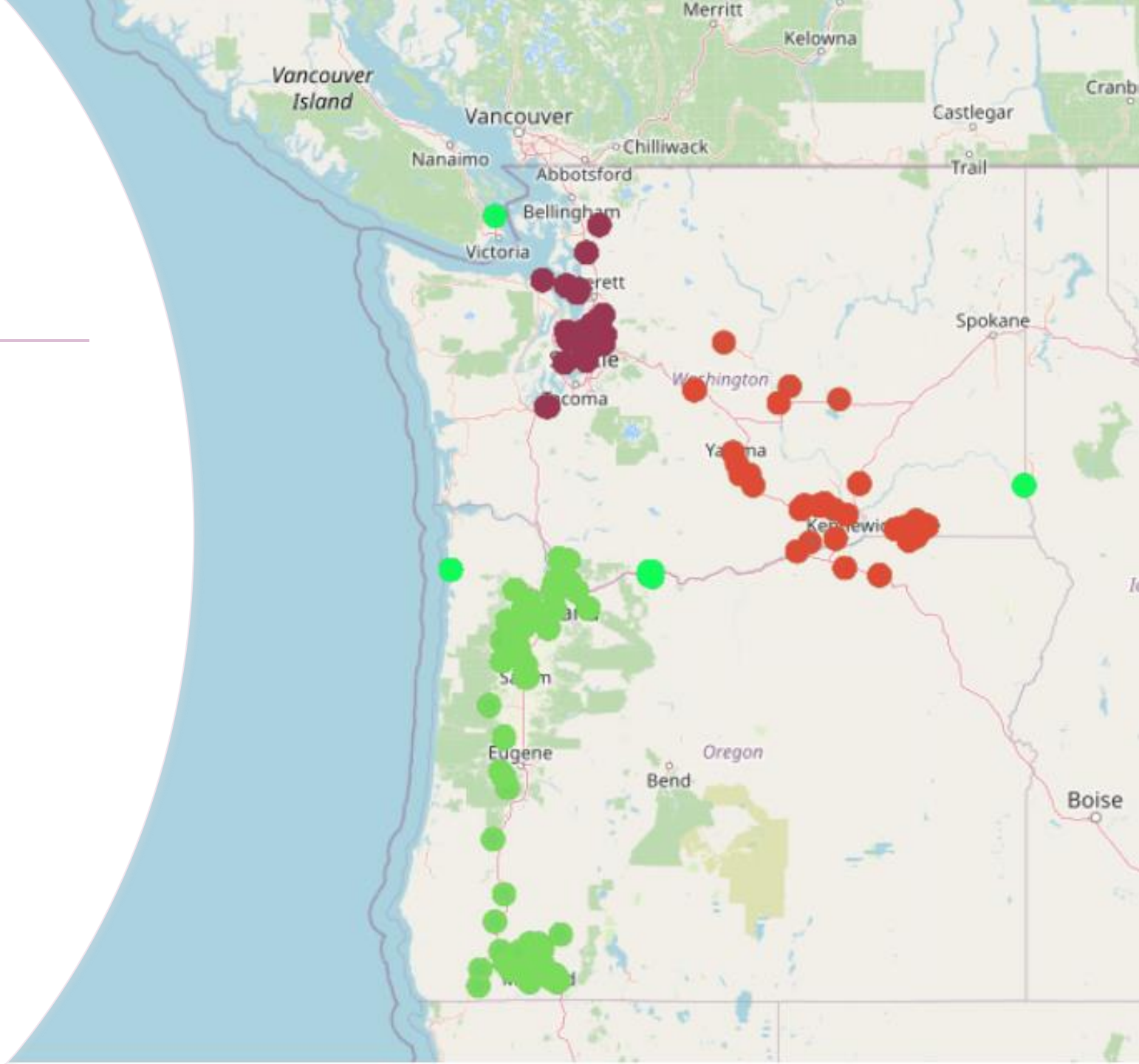
API Search Call for Neighbors

- All wineries and vineyard locations located within 100km.
- Feature rich results.
- Explore vast neighborhoods with real time user data.



DBSCAN

- Kms/Rad: 6371.0088
- Epsilon: 65 / kms_per_radian
- Min-Samples: 5
- Haversine metric



Conclusions

- Potential client database is deep and vast.
- Insight is provided into market using machine learning.
- Functional approaches to territory development are elucidated using market penetration studies such as this one.