

# Visualizing Road Usage of Taxi Cabs

**MIT Big Data Challenge**

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Human Mobility and Networks Lab

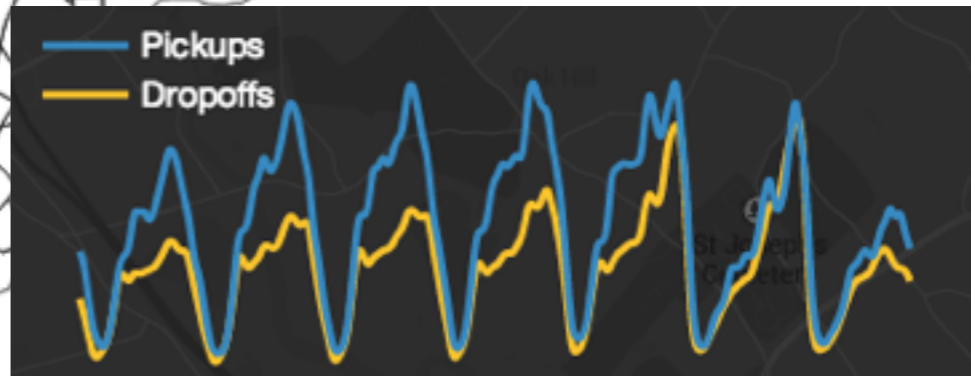
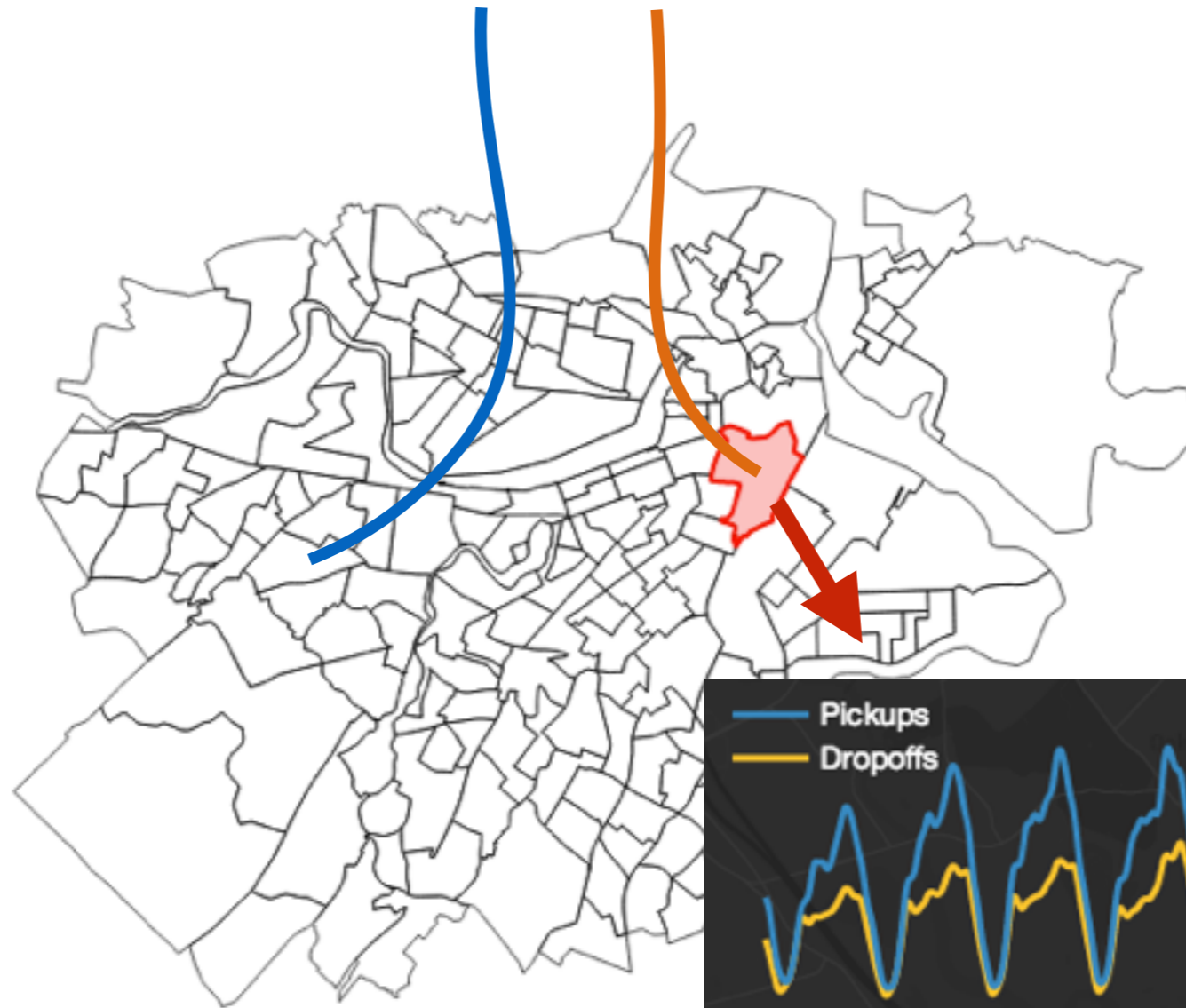
[jtoole@mit.edu](mailto:jtoole@mit.edu), @jamesonthecrow

156527,2012-05-07 14:54:00,50 Francis St Boston Ma 02215,-71.107178,42.335685  
156528,2012-05-07 17:26:00,1080 Boylston St Boston Ma 02215,-71.08807,42.347138  
156529,2012-05-07 17:26:00,50 Seaport Ln Boston Ma 02210,-71.041327,42.349207  
156530,2012-05-07 14:55:00,Viaduct St Boston Ma,-71.041705,42.349905



**Python**

**Census**



Taxis are about trips between two places.

## OpenStreetMap



### Python:

Extract and parse OSM XML

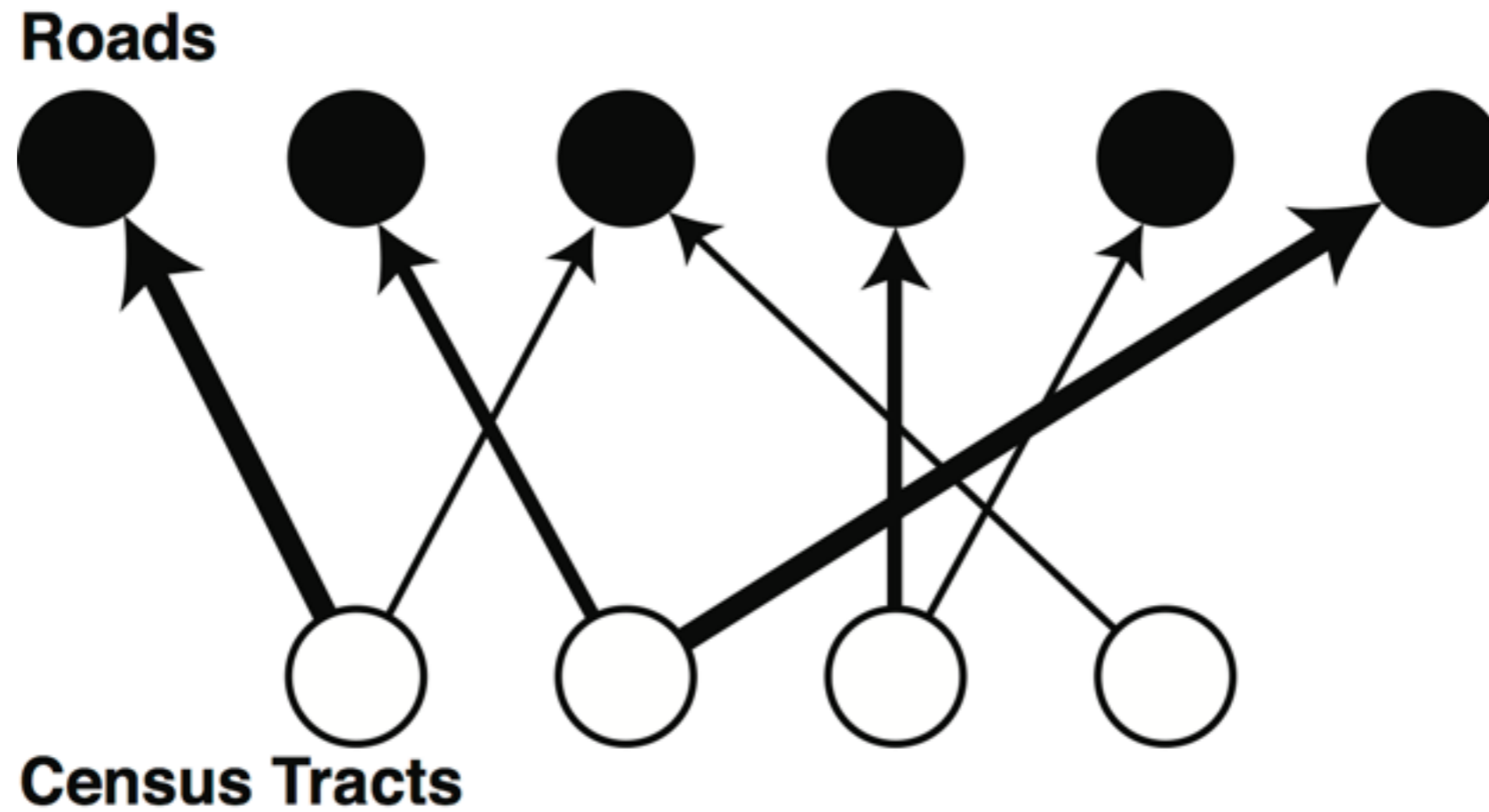
## Routing



### C++:

Route taxi trips

Construct the bipartite network of road usage.



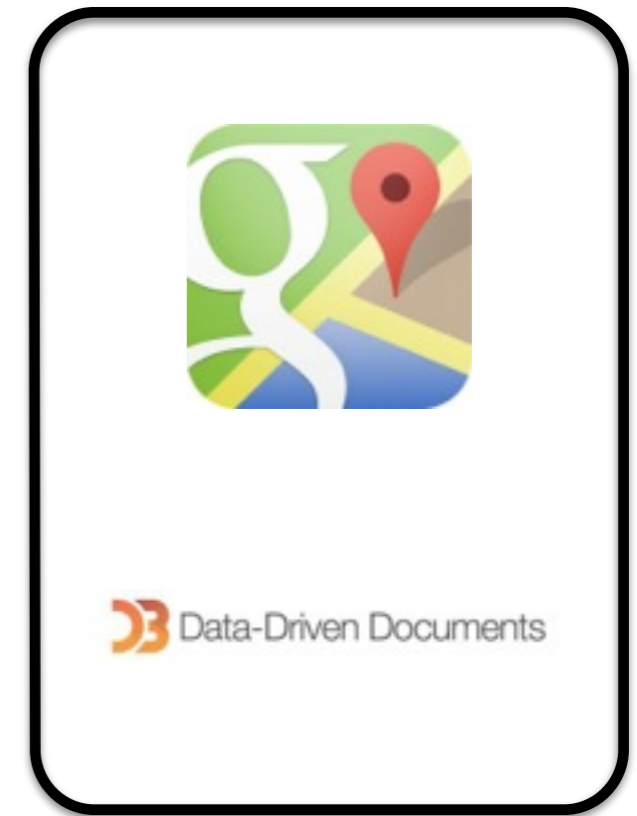
Query this bipartite network from the browser.



**Data**



**Application**



**Visualization**

What can we learn?

[viz.jamesontoole.com](http://viz.jamesontoole.com)