Traffic Patterns in Manhattan
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I L L I N O I S
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Illinois Geometry Lab
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- Dataset: Manhattan taxi data from 2011
- Prior analysis:
  - Time series matrix with 50 signature trends and the traffic flow of each signature at each hour
  - How each road is represented by a linear combination of those signatures

- Visualize taxi's trends and how some dominant 'signatures' of traffic change dynamically over time in Manhattan
- Hope to better understand Manhattan traffic trends in the future

Plot all roads in New York city using existing data file containing latitude and longitude of roads' start points and end points.
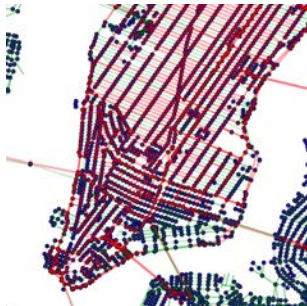
Visualize how each road behave by showing what types of traffic signature trends each road exhibit.

Signature 1

Signature 2

Signature 3

We have a Time Series matrix containing each hour's taxi traffic of each signatures. After studying those static signatures, we incorporated interactive map packages in python to create a dynamic view of traffic patterns. Here is a video we made to show how top 3 'signature' change from January 8th to January 15th.

Thank You !