Overview
Thanks to advanced technologies in sensing and computing, the mobility patterns and dynamics of urban cities and their citizen are recorded and manifested in a variety of urban trajectory datasets, which include the moving paths of human, taxi, bus, fleets, cars, and so on. Understanding and analyzing such large-scale, complex data is of great importance to enhance both human lives and urban environments.

Supported by National Science Foundation, TrajAnalytics software aims to provide exploratory data analysis and visualization tools for researchers, administrations, practitioners and general public so that they can understand the data and reveal knowledge intuitively:

- Decipher the information hidden in the trajectories of large populations
- Optimize assessment and planning of transportation infrastructures and policies
- Improve life quality and environment

Urban Trajectory Data
- Advanced sensing technologies and computing infrastructures produce massive trajectory data
  - GPS, Wi-Fi, Cellular, RFID, blogs, tweets
  - Taxis, fleets, public transits, human
- Massive trajectory data “sample” city transportation and human mobility patterns
  - Origin/Destination, Positions, speed, occupancy, fare, direction, latitude, etc.
  - Big, dynamic and complex spatiotemporal data

TrajAnalytics Software Framework
- TrajBase: manage big data over distributed computing platform
- TrajQuery: quickly answer data queries with parallel computing
- TrajVis: interactive visualization interface for exploratory data analysis and sharing

Project website: [http://vis.cs.kent.edu/](http://vis.cs.kent.edu/)  
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