



## Alex Muro

Lead Developer– Albany Visualization and Informatics Lab (AVAIL)



Alex Muro is a graduate from SUNY Albany's Computer Science Department. Mr. Muro has been a member of Dr. Lawson's research team for ten years, working on a wide variety of transportation projects ranging from transit to freight. Mr. Muro possesses a valuable combination of subject matter expertise and advanced technical knowledge that provide projects with efficiency, creativity, and cutting-edge technology. Mr. Muro is considered one of the preeminent Data and Web technology developers within the SUNY Albany system and a leader in bringing applied data science to the University at Albany. Mr. Muro is leading development of cloud based GIS and visualization tools, leveraging the power of the web to make GIS systems easier to access, use, and understand. His projects tie spatial data— such as census, land use, and industry classification codes—to their effects on local and statewide transportation networks. His presentations at the Transportation Research Board annual conferences on methods for visualizing Intelligent Transportation Systems (ITS) sites and their data for use in planning have been met with unabashed enthusiasm.

### Education

- BS. Computer Science and Applied Mathematics, State University of New York, University at Albany, 2006

### Professional Leadership

- Contributed Data and Analysis for FHWA's report to Congress on the laws increasing truck weight in Vermont and Maine.
- Presented at the 90th annual Transportation Research Board on WIM data research.

### Related Projects

#### Web-based NPMRDS Congestion and Performance Measurement Dashboard - NYSDOT

Mr. Muro is Lead Developer on the New York State Department of Transportation project to employ the National Performance Management Research Data Set (NPMRDS) for Metropolitan Planning Organization (MPO) staff to identify transportation bottlenecks.

#### Entrepreneurial Ecosystem Atlas - Kauffman Foundation

Mr. Muro was lead developer of The Entrepreneurial Landscape Analysis Tool project funded by The Ewing Marion Kauffman Foundation. This web-tool combines data sets with leading indicator potential overlaying information visually and geospatially - highlighting business type distributions, property value and income, and can be accessed here: <http://eea.availabs.org/>

#### Traffic Data Analytics –Federal Highways Administration Pooled Fund Study

Mr. Muro is lead developer on the Federal Highway Administration Pooled Fund Study for six state DOTs

### Professional Highlights

- Lead Programmer, Albany Visualization and Informatics Lab (AVAIL), Lewis Mumford Center, University at Albany 2006-present
- Web and Javascript Developer, Freelance 2002-present
- Programmer, Open Source Business Consulting, Woodstock, NY 2010-2012
- Programmer, MapInfo 2005-2006

(Connecticut, Ohio, Pennsylvania, Texas, North Carolina and Michigan) to develop a web-based traffic analytics data administration module. The data administration module is an all-inclusive transportation data visualization software suite focusing on continuous counts data, WIM and HPMS. As contractor, AVAIL was tasked with developing a meaningful methodology for interpreting automatic traffic recorder data. Their effort combines data acquisition, reconciliation, and management into a multi-platform, web-based data visualization and reporting tool.

#### Transit Market Analyst – New Jersey Transit

Mr. Muro was lead developer for the web-based transit planning tool developed for NJ TRANSIT and sponsored by New Jersey Department of Transportation and the University Transportation Research Center. This modeling and transit network tool enables the NJ TRANSIT planners to run flexible models based on time of day, time of year, any subset of census tracts and is completely transferrable to any geographic area in the United States.