



## Frank Rowe, Web + GIS Developer

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### Profile

Web and GIS Developer with 5 years of experience developing web mapping applications in the public and private sector. Specializing in the development of custom web mapping interfaces, full stack software solutions, and the use of open source tools to enable low-cost, effective software.

### Experience

#### INDEPENDENT DEVELOPER, 2015-CURRENT

As an independent GIS and Web Developer, I create custom web mapping applications, backend spatial programs, update existing GIS solutions, and implement custom front end designs. As a freelance developer, I am able to work for a wide set of clients in a range of industries across the country. I work independently and remotely, but also as a part of remote teams.

Projects I have contributed to during this period:

- NeoNetWerx

A Commercial Real Estate Multiple Listing Service (MLS) web site. Full stack development: wrote complete backend solution in Node.js + PostgreSQL, and created front end mapping interface in Leaflet.js. Implemented requested designs and created new designs for front end administration and search interface in HTML/CSS /JS with Bootstrap and React.

- Identified Site Emergency Planning Application

A web site and mapping application to allow natural resource pipeline safety experts to mark and alert high priority sites within pipeline buffer zones. Wrote complete backend in ASP.NET MVC + MS SQL Sever. Developed front end HTML/CSS/JS/Leaflet.

#### GIS DEVELOPER, EASTERN SHORE REGIONAL GIS COOPERATIVE, 2009 - 2014

As a GIS Programmer at the Eastern Shore Regional GIS Cooperative in Salisbury, Maryland, I designed and implemented web mapping applications, data visualization dashboards, and open source tools.

I led development of multiple web applications built for visualizing spatial data that are currently in use by the State of Maryland. These include:

- The Department of Labor Workforce Dashboard
- The Department of Energy Smart Energy Investment Dashboard
- The Department of Business and Economic Development Data Explorer Dashboard
- The Maryland BayStat Dashboards

Each of these dashboards were custom made to fit each department's data visualization needs, and were built on top of a platform of open source components, including Node.js, D3.js, and Leaflet.js.

I also participated in development of several web mapping applications for public and private clients. These include:

- The Maryland Critical Area Map  
An interactive map to view and query current Critical Area boundaries in Maryland.
- Pipelines Nearby  
A mobile application to find the nearest natural resource pipelines to a user's location.
- The Maryland LiDAR Viewer  
An interactive map to view and query elevation data across the state of Maryland.

## Education

Salisbury University, Salisbury, MD – Bachelor of Computer Science, 2010

## Skills

Open source Web and GIS application development. Full stack JavaScript. Node.js, Express based applications. Spatial databases and spatial SQL, including PostGIS, and Microsoft SQL Server Spatial. Mapping interfaces and data visualization with Leaflet, OpenLayers, D3. Mobile, responsive, custom HTML/CSS web designs. Linux server administration.

## References

Dr. Michael S. Scott, Director, Eastern Shore Regional GIS Cooperative  
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Dr. Art Lembo, Professor of Geography and Geosciences at Salisbury University  
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