



# Interactive Geospatial Visualizations

SpaceApps SF 2016



# The Team

Connor - Electrical Engineer

Specializations: Satellite data, spatial analysis

Role: Developer

Colleen - Geospatial Engineer

Specializations: JavaScript, HTML5, CSS3, jquery,

Role: VizDesign, Coding, Interpretation

John - Data Analyst

Specializations: Data science, data visualizations

Role: Data query/scraping, data prep



# SPACE APPS CHALLENGE - San Francisco HACKATHON 2016

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## Motivation/Challenge

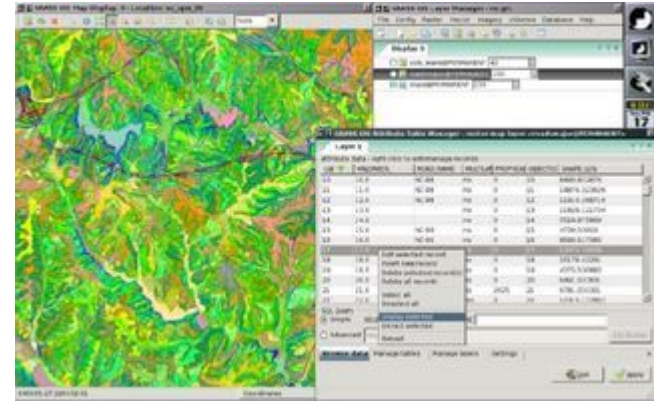
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We are addressing radical transformations in data exploration and the impact of the third dimension for understanding complex earth-systems data. Currently the vast amounts of geospatial data are not being utilized as easily as we would imagine for solving major biogeochemical processes of the 21st century. Part of this is due to the fact that there is a major lack of creative api tools that maximize user interactivity and as a result the traditional data visualization experience is mundane, boring, and void of any fresh interpretation.

[spaceappsfhackathon2016/blob/master/SpaceApps\\_logo-circle-white230.png](https://spaceappsfhackathon2016/blob/master/SpaceApps_logo-circle-white230.png)

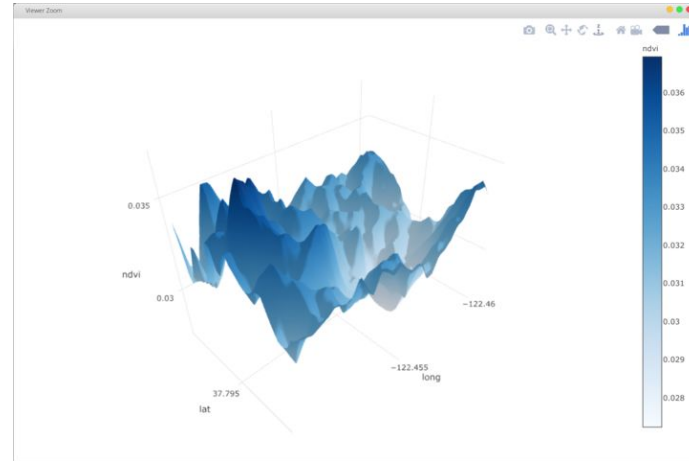
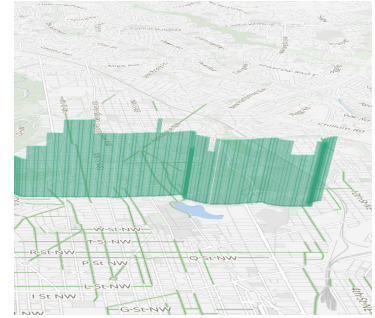
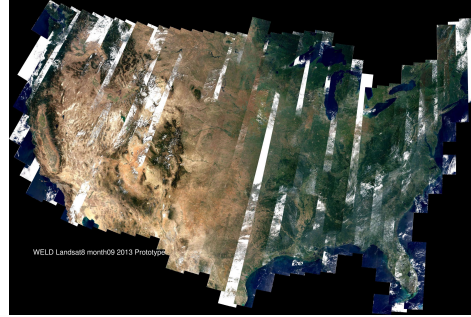
# The Challenge ...

- Lots of geospatial data
- Easy to misinterpret geodata
- Available in multiple data formats
- Proprietary software
- Lacking interactive tools that make geodata fun to explore



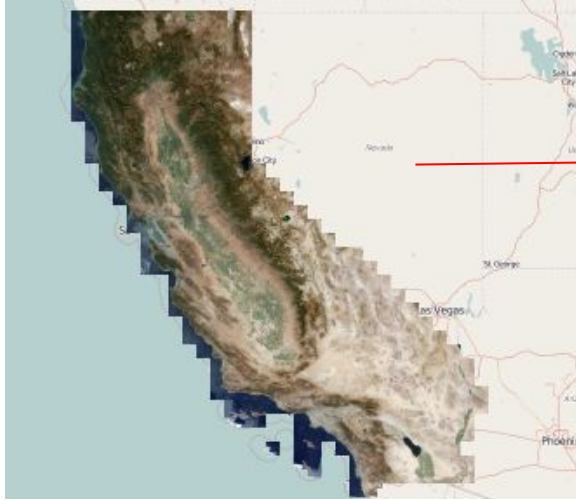
# The Goal

- Connect to multiple data sources
- Easy tools for making interactive visualizations
- Multiple use cases



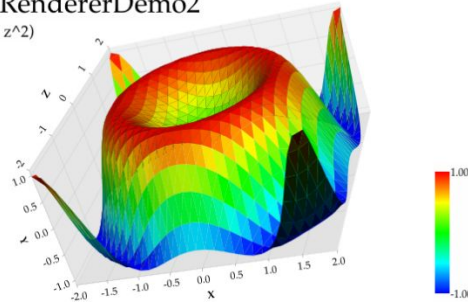
# Demo

# Demo Creation next steps...



SurfaceRendererDemo2

$$y = \sin(x^2 + z^2)$$



Surface Map 3D  
Projections

# Next steps

- Basic structure is there--need to connect the parts under unified platform
- Connect to more data sources
- Automatically render real-time data into imagery