

San Francisco Bay Water Quality

Information Visualization Group 6:

Joachim Boltz 9940177

Paul Erpenstein 12107369

Benjamin Lee 12112693

Concept

- Display the following data:
 - Agricultural Pollutants
 - Nitrates, Ammonium, Phosphate, Silicate
 - Chlorophyll
 - Oxygen Concentration
- From 1990 to 2014
- 38 Measurement Stations
- Assist Researchers to find Patterns in Pollution and Algal Bloom

Technologies used

- D3.js
- three.js
- React
- Redux
- Express

Interaction Methods

- Camera Movement
 - Rotate
 - Pan
 - Zoom
- Variable Selection
- Timeline
- Depth Meter
- Individual Station View
- Tooltip on Hover

Prototype Demonstration

<https://infoviz-nodejs.appspot.com/>

Additional Features

- Timeline Animation
- Alternative View
- Grouped Charts
- Smooth Transitions
- Billboard Rendering of Bars
- Further Styling

Lessons Learned

- 3D is Challenging
 - Occlusion
 - Perspective Distortion
 - Camera Controls
- Focus on Target Users to Prioritize
- New Technologies
 - D3.js, three.js, Google Cloud