

IDEAS
Focus Summer School
Visualization

Welcome!

What we will do

- Visualization theory & practice
- Week 1: In-depth instruction with visualization tools
 - Mornings = Lecture / Discussion / Hands-on tutorials
 - Afternoons = Independent work + “Show and Tell”
- Week 2 : Independent projects
 - Mornings = required attendance
 - Afternoons = optional attendance , except Thurs.
 - Friday = final presentations

Topics : Week 1

- Tues. – 2D Visualization : Design + Matplotlib
- Wed. – Web-based visualization with D3.js
- Thurs. – Visualizing Geographical Data with GMT,
and more D3.js
- Fri. – Survey of other Software...

Topics : Week 1 Friday

- If you are familiar with any of these tools (or others), please give a 15-minute demonstration!
- **Volumetric Data** : [ParaView](#), [VisIt](#)
- **Web-facing Tools** : [x3dom](#), [Bokeh](#), [Plotly](#), WebGL, [shiny](#), [datawrapper](#)
- **General Interactives** : OpenGL, [Processing](#)
- **Artist Tools**: [Photoshop](#), [Illustrator](#), [Maya](#), [Blender](#) , ffmpeg, Image Magick
- **Python Tools** : [Seaborn](#)
- **Mapping** : [NASA World Wind](#), [cartopy](#), [basemap](#)
- **R** : [ggplot2](#)

Project : Week 2

- **Objective:** apply the skills you learn from this course to a visualization project of your choice (ideally related to your research).
- **Important Dates:**
 - Mon. Sept. 10 – Project Proposals (informal 1-on-1 with Aaron)
 - Wed. Sept. 12 – Projects half completed (check in with Aaron)
 - Fri. Sept. 14 – Project Demos (due to Aaron 10am, presentations 12:30 pm)
- **Submission Material:**
 - 1-page description
 - Pictures / videos / website showing your work
 - Any necessary files / materials
- **Demos – NOT POWERPOINT PRESENTATIONS !! :**
 - 10 minutes each + 5 minutes for for questions
 - We'll bring the food!

GitHub

- **Clone my repo with our class materials:**

```
git clone https://github.com/ageller/IDEAS_FSS-Vis
```

- **If/when there are updates:**

```
git pull
```