Data & Visualization Weekly Projects Report 2021_07_30

Active Projects

Active Development

- Biosphere 2 Biosystems Visualization Collaboration
  - Met with Omani and discussed new idea to use photogrammtery to create the point cloud version of her scene
  - This means we need to automate the taking of high resolution photos from her unreal engine scene
  - Left that as a task for her to experiment with next week
- Collaboration With Techcore'S Summer Internship
  - last week the students had the chance to go to the biosphere 2 rainforest
  - Also we found out that we aren't going to have the new lidar data coming from Joost so we are changing to supporting a photogrammetry worflow
  - Trying to keep the interns busy working on things that fit with their respective interests, but the creative track students are a little hard to keep busy
- Data Visualization Roadshow With Jeff Oliver
  - Met with Jeff and planned the changes we have to make to the presentation for next thursday
  - I decided on the dataset that I'll be using in my part of the presentation (SIR model for virus transmission)
  - Sent messages out to Catalyst to figure out a meeting time for presentations there in the fall
  - Jeff invited me to attend the Software carpentry instructor training happening this fall and I think that sounds like a great idea
- Independent Study Abby Collier
  - Met with Abby and worked on compute shader stuff for self advection of color
  - we also worked on noise generation inputs for the astro dance performance movement 2c
- Radiology 1St Year Resident Carl Sabotke
- Remote Visualization Infrastructure Development
- Stellarscape Astronomy Multimedia Dance Performance
  - Director decided that we are going to try to finish all the visuals in the next month which meant I had to respond with my own sense that this won't be entirely possible
  - Had a meeting to discuss remaining visual to finish and what the priorities are
  - Started the process of transferring the Northwestern star formation simulation to hard disk to produce visuals from it

- Checking on the machine that had the Agora Plantary disk simulation on it and that Jetstream machine is provin very difficult to access for some reason
- Managed to work with Rishav Kumar who is Gustavo Almeida's student to send data over bluetooth from a wearable device to touch designer

Consultations

- Discussion about Social Network Analysis Visualizations
  - I received a message from Jean McClelland mentioning there are two faculty lookin for assistance with Visualizations for their project that involves Social network analysis
  - Set meeting up for this upcoming Tuesday
  - Leih, Rachel - (rleih) rleih@arizona.edu
  - Gildersleeve, Rachel - (ragildersleeve) ragildersleeve@arizona.edu

Upcoming

- Has Faculty Collaborations With Holodeck
- Observablehq Portfolio Of Data Visualization
- Ray Tracing On The Hpc

Completed For Fiscal Year

Recently Completed

Workshops/Trainings

- Mt. Lemmon In Your Pocket-Creating A Virtual Reality Tour
  - https://rtdatavis.github.io/#GIS_week2020
- Presentation For Civil Engineering Department
  - https://docs.google.com/presentation/d/15Z9zcxU4vIIgFPnKEcaGv9GH7JtjNdx4Xpnjec0EzEc/edit
- Resbaz Organizer And Workshop Provider
  - https://hackmd.io/-XS5Mqh8TA2EHjTHCQ_4tw
- Tech Core Level Up Presentation Monday, Sept 28 2020
  - https://rtdatavis.github.io/#techcoresept28
- Tech Core Level Up Presentation Tuesday, Mar 17 2020
  - https://rtdatavis.github.io/#techcoremar20
- Womens Hackathon: Visualization On The Web Workshop
  - https://womenshackathon.arizona.edu/
  - https://www.youtube.com/channel/UCe1YiJ53o3qcayVs4cipeXA/videos
  - https://www.youtube.com/watch?v=VLwPOtqW8oM

Completed Projects/Collaborations

- 3D & Vr Retrofit Azlive

- – https://rtdatavis.github.io/#retrofitAZLIVE
- Bio5 Virtual Reality Tour
  - – https://rtdatavis.github.io/#bio5-vr-tour
- Covid Retail Mitigation Web Scraping
  - – https://rtdatavis.github.io/#retailscraping
- Force Directed Biochem Networks
  - – https://rtdatavis.github.io/#biochem-networks
- Migrant Forensic Empathy Project: A Digital Borderlands Grant Initiative
  - – https://mfemigrantdeathmap.baylyd.repl.co/
  - – https://devinbayly.github.io/digital_borderlands_conversion/src/mesh_test.html
  - – https://devinbayly.github.io/digital_borderlands_conversion/src/index.html
  - – https://hackmd.io/Qo_HmwmwSTG-QPYVTJl0Lg?view
  - – https://osf.io/v9swc
- Neuro Choropleth
  - – https://rtdatavis.github.io/#neuro-choro
- Oyster Vibrio Literature Review
  - – TBA
- Spring Break Covid Photo Maps
  - – https://rtdatavis.github.io/#spring-break-covid

Completed Consultations

- Advice For Thesis Defense Visualizations, Sabrina Nardin
  - – NA
- Bryan Carter Photogrammetry
  - – https://sketchfab.com/3d-models/churche-maze-photogrammetry-d0767af08a5d498fb960efe3ac83385f
  - – https://drive.google.com/file/d/11E5_912vW6kuPBxcujGKs-UQD9S3jA-H/view?usp=sharing

Infrastructure Developed

- Autamus Web Interface
  - – https://rtdatavis.github.io/#autamus_interface
- Virtualgl For Nvidia Accelerated Remote Hpc Visualizations
  - – https://rtdatavis.github.io/#virtualgl
- Xpra And Singularity For Comprehensive Graphical Application Support On Hpc
  - – https://rtdatavis.github.io/#xprasingularity

Protocols and Analysis Developed