Data & Visualization Weekly Projects Report 2021_05_07

Active Projects

Active Development

- Advice For Thesis Defense Visualizations, Sabrina Nardin
- Biosphere 2 Biosystems Visualization Collaboration
  - Met with Omani and talked more about how to use Touch Designer for compute shaders
  - Corresponded with Ash about internship arrangement, haven't gotten all the details kinked out but a working document is here https://drive.google.com/file/d/1a4dsJT1ZWRVSsP7CJB7bCF6RqsKClblq/view?usp=sharing
- Bryan Carter Photogrammetry
  - Met with Tayvien and tested out whether Metashape is going to be able to handle the number of images he has
  - Sounds like there will probably be a need to use HPC just because the runtime is a bit too much for apporto?
  - Should reach out to him and ask when his finals are over so that we can meet again and get situated on the HPC
- Data Visualization Roadshow With Jeff Oliver
- Independent Study Abby Collier
  - Met and added final touches to her feature piece for the final part of the independent study
  - Submitted grade with Blake, and will send Holly Brown a brief report with Abby's independent study webpage
- Jason Hortin Holographic Dance Graduate Project
  - Helped Jason connect with Bryan and Tech Core with idea that his holographic dance project could be part of the Tech Core summer internship
  - Last I heard he had connected with Bryan to do some volumetric video capture in the Digital Humanities new center
- Migrant Forensic Empathy Project: A Digital Borderlands Grant Initiative
  - Lots of time going into this to try to wrap things up by the end of May
  - Unfortunately I've hit a considerable obstacle that the mechanism I was counting on doesn't work for constraining the camera motion to the landscape mesh
  - I've spent a significant amount of time trying to research alternatives and implementing my own solutions and I'm coming up empty
  - I have posted to SO about this and hopefully that will get some attention
- Oyster Vibrio Literature Review
- Remote Visualization Infrastructure Development
  - Met with Chris to discuss vulkan support

- He's still working on NoMachine configurations,
  - Perhaps going to setup the vulkan 1.1 when the x server is live and see if I get different errors
- Resbaz Organizer And Workshop Provider
- Stellarscape Astronomy Multimedia Dance Performance
  - Had monthly meeting last week
  - Discussion about grants that will be pursued by other members on the team following our eventual performance
  - Shared my updates about conversation with Gustavo on Sensors
  - Demoed my most recent visualizations using Touch Designer

Consultations

- Advice For Thesis Defense Visualizations, Sabrina Nardin
- Bryan Carter Photogrammetry
  - Met with Tayvien and tested out whether Metashape is going to be able to handle the number of images he has
  - Sounds like there will probably be a need to use HPC just because the runtime is a bit too much for apporto?
  - Should reach out to him and ask when his finals are over so that we can meet again and get situated on the HPC
- Jason Hortin Holographic Dance Graduate Project
  - Helped Jason connect with Bryan and Tech Core with idea that his holographic dance project could be part of the Tech Core summer internship
  - Last I heard he had connected with Bryan to do some volumetric video capture in the Digital Humanities new center

Upcoming

- Collaboration With Techcore's Summer Internship
- Has Faculty Collaborations With Holodeck
- Observablehq Portfolio Of Data Visualization
- Radiology 1St Year Resident Carl Sabotke
- Ray Tracing On The Hpc

Completed For Fiscal Year

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
- 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
- Neuro Choropleth
  - https://rtdatavis.github.io/#neuro-choro
- Spring Break Covid Photo Maps
  - https://rtdatavis.github.io/#spring-break-covid

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