Project Progress Report

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Project Title: Hurricane Visualization
Link to the repository:
https://github.com/kunal911/CS-6635-5635-Final-Project

• Estimate the percentage of the overall project you have completed thus far.

We have completed around 15-20% of our project. The data we are using is the Hurricane Isabel data produced by the Weather Research and Forecast (WRF) model, courtesy of NCAR, and the U.S. National Science Foundation (NSF). The amount of data we are using is pretty huge, as it contains 626 .gz files, each file represents a single atmospheric variable for one timestep.

• What have you completed?
So far, we have gathered two separate data sets. The Hurricane Isabel data was not in a format that Paraview accepted. We wrote a script to unzip and convert all the .bin files to .raw in order to use them in Paraview. We have about 58 GB of data.

• Create a list of what still needs to be done on the project and estimate the effort each item will take to complete.

Sr.No	Task	Is it Completed?
1	Form Team	Yes
2	Meet to discuss possible topics	Yes
3	Submit Team Details	Yes

4	Standup sessions to discuss various Visualization Designs	Yes
5	Selection of dataset	Yes
6	Submit Project Proposal	Resubmitting
7	Critique of rough designs	Yes
8	Begin with Data Preprocessing	Yes
9	Project Milestone	Ongoing
10	Final Submission	

Now that we have our data in a compatible format, we now need to visualize it and analyze each data set. We plan to first simply explore the data and see what information each holds. We will do this by implementing the visualization techniques we have learned in class. Once we have done this for each data set, we will make some comparisons between the two and see what similarities each storm had and what differentiates them. Ultimately we would like to animate in some way each storm, and in order to do this we assume we may have to go back and tweak certain parameters in order to create cleaner and more informative visualizations. As we do this we hope to implement an animation.

Explore Data through visualization techniques	Compare each hurricanes visualizations	Clean up and refine the visualizations	Create animations
3/27-4/2	4/3-4/9	4/10-4/16	4/10-4/18

• Have you had to make any changes in your project description? If so, please list and justify the changes.

Initially, we thought of performing tornado visualization but that would be difficult because of lack of accessible data.Therefore, we now plan to visualize hurricanes using the Hurricane Katrina data given in class as well as Hurricane Isabel data found from the IEEE 2004 visualization contest.

• Any additional information?
We currently have 58GB of data. We currently only have the data on one member's machine and we are figuring out how to get the data onto the other members machine too. We thought creating a repository would work but github has a repo storage limit and other cloud based services typically come with a cost after ~2GB.