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## PEARC 18 Conference

July 22-26 I had attended The Practice & Experience in Advanced Research Computing (PEARC18) conference. This year for the PEARC 18 conference was in Pittsburgh, PA This conference give you a lot of new knowledge. On the opening day they had lectures for the student program; which told us about opportunities about jobs. Mr. Ricardo Gonzales was the host for the PEARC18 conference. He introduced all of his committee for the conference. That way if we would have any question while we was attending the conference, we could ask them or they could contact him if we could not find him. After Mr. Ricardo finish speaking, we had a FBI agent that lived in Pittsburgh PA. The FBI agent talked about her experience with being a agent. She has been a agent for six years. She notifies us that there were lot job openings for computer scientist. They was not looking for a experience because once you get the job they will show you more skill that will be provide by the agency. After, she presented her lecture she told us about Pittsburgh. Being that we it is a beautiful scenery. Also just like other states and city there is a lot of crime, advised us not to walk alone, wanted us to go in pairs. Hence, Mr. Michael Becich a pathologist professor talked about what he does for his job and cancer. Mr. Becich told use about how to collect tissue sample and they there crew uses the sample and put it in the database. The doctors then can determined what kind of cancer the patients has and treat them accordingly.

The next day they gave us breakfast from 7 am to 8 am. Then I had did my volunteer work for the Introduction to Python 3 and Jupyter Notebooks. I had to stand by the door and make for sure the people was coming to the write room or if they wanted to come to that section. The section want them to download anaconda because it has different type of languages but he focus on python and jupyter. He talked about a lot of syntax about python. He was not able to go over jupyter because time did not permit so. Also, when the section the section over I had to collect all the survey. The surveys was to see if the people like the section. Later on the afternoon I had another volunteer I Learned Python, Now What: Python 102 for Scientific Computing and Data Analysis presented by Ashwin Sirinath and Jeff Denton. They show advanced python for people that had basics. For the ones that did not have experience he provide a website that will help. Later on we had dinner with mentors that was provided to us before we attended the conference. My mentor was Mr. Markus Dittrich. I am graduate student so we mostly talked about how to tackle problem if they were to come up in a interview. He gave a lot of good advise on it. One of them was to always try everything you can think of to solve the problem before asking for help. Which I think that helped when I was in the Hackathon.

The following day on the ballroom floor there were table set up for different companies. The companies showed us the new technologies they have came up with or what was

trending now. Some companies that were present was dell, intel, and much more. So on I had a presentation on Establishing paradigms for modifying and developing the Workforce Development section of the Science Gateways Community Institute Site. The goal of the web development team was to increase the interactivity of the SGCI Workforce Development section of the SGCI web site to attract potential members and publicize needed information. SGCI had recently converted to the web platform Liferay from WordPress which necessitated the need to learn a new platform and its capabilities. The modifications for this project were completed utilizing Liferay components, graphical additions, and interactive components

The focus of the Science Gateways team, overseen by Dr. Hayden, was to establish a method of creating and modifying information on the SGCI Workforce Development site. The Science Gateways team sought to obtain modification capabilities to the Workforce Development section of the website. Alterations to the SGCI Workforce Development section were suggested and designed by the Science Gateways team and were created using HTML, CSS, and graphical modeling. Modeling of pages under development is a basic tenet in website creation. Whether through coding or graphical methods, storyboarding is necessary to build a coherent site. The team project produced models and HTML files for future pages to be added to the SGCI site once a method of updating has been established.

The Mentoring/Internship Resource page was assembled utilizing HTML and CSS coding. Basic DIV tags replaced the use of a table formatting and allowed the use of previously CSS classes developed by the TACC developers. Sample CSS styles were substituted for SGCI classes in order to view the assembled code in a browser. This process worked well for this type of page which was formatted as a listing with embedded HTML links. The Young Professional of the Year and Financial Support pages were developed using graphical models rather than HTML to capture the essence of what the page would look like once changes had been implemented. This process of developing graphical models instead of HTML pages was agreed upon when it became clear that the team had no way to directly implement changes to the Workforce Development section of the website. The Gateways Career Path Page was primarily built around a survey intended for current gateways developers. The lack of a known career path based on the development of a gateway in and of itself lead the team to develop a large list of questions, which was then narrowed down to 14 key questions in order to determine the skills and knowledge needed to work on gateway projects.

Lastly, previous in my paper I mention about the hackathon. My group had to Develop Web-based mapping functionality for SimCCS Gateway. Our task was to:

- Mapping functionality should include adding and editing layers of georeferenced data such as CO<sub>2</sub> sources (e.g., power plants), sinks (geologic reservoirs) and pipeline infrastructure networks onto a basemap.

- Ability to create selectable subsets of the layer data to enable the development of specific SimCCS problem scenarios by users.
- Demonstrate the capability for integrating new georeferenced data for potential SimCCS users across the US, China and Australia.

This was a challenging task but my group came together and brainstormed what we had to do and got done what we could.