The 2018 PEARC conference, held in Pittsburg, PA was outstanding this year. The conference was held at the Wyndham Grand hotel. The service was outstanding and made everyone feel comfortable. There were various events held in various places throughout the hotel. The places that events occurred were Ballrooms 1,2, and 3, Sterling 1 and 2, Commonwealth rooms 1 and 2, Black Diamond, and King rooms 1, 2, and 3. On Monday, July 23rd, there was an interesting python session.

Upon arrival, there was a student program opening activity. The student program activity session was to basically get the students settled and to hear from a few speakers who have information about jobs and opportunities. The first speaker was an FBI agent that gave us information on working with the federal government while majoring in STEM. She went into full detail as to why STEM plays a huge role in the federal government. It is because of jobs such as cyber security and counterintelligence. Also, counterterrorism is the FBI's to priority, which mainly means to protect. She also gave us information on sample careers in STEM, computer scientist, information technology specialist, forensic biologist, and cryptanalyst. The speaker also said that the FBI offers internships and jobs to college graduates. Some benefits from the working with the federal government are that you can gain a variety of skills and real-world experiences. There are also areas where a person can grow, develop, and gain management opportunities. To be a special agent, you must be able to pass a medical exam, carry a firearm, and complete approximately 21 weeks of employment as a Special agent trainee successfully. After the speaker was done presenting, we had lunch and went to prepare for the next day.

At the beginning of the next day, we started off with a breakfast, early morning breakfast. There was a python session held at 8:30am. During the session, there were a couple of software programs that needed to be installed to the computer. The speaker asked all participants to download python 3. Shortly after it was downloaded, he asked, "What are some differences between python 2 and python 3?". One difference between the two is the printing command. He also explained a few variables that could be found in python. Python has many ways that code can be executed, and just like math, python performs expressions with the order of operations. For example, the braces will always come first, the exponentials come second, the multiplications and division come third, the additions and subtractions come fourth, comparisons come last. The python tutorial was really helpful for me. Shortly after the first python session, we had a small break to finish installing software that needed to be on our computer for the python session. When the session picked back up, we started looking at ways to pass functions between variables using references and pointer variables. It was very exciting.

Later that day we had to prepare for our student-mentor meeting, which occurred around dinner time. The staff was exceptionally well and very polite. We met with our own personal mentor that was assigned to us and allowed us to get to know our mentors. It was a lot of fun and laughs. To spark up the next day, I had to volunteer for the poster session. The poster session was very interesting. I viewed many student's posters and was able to help judges us with grading posters based on some research that the student conducted prior to the conference. There were multiple presenters and they all had great posters with wonderful information.

After the poster set up, there was a modeling session. During the modeling session, students all got into groups of fours to solve a certain problem that was given. The project that was assigned to us was called, Air Pollution. It took a lot of critical thinking to solve the problem, even though we had teammates. We all looked at the problem carefully and broke the problem down into different sections. Each member of the group took on a task of their own to see if we could be able to put the project together in the end. We evaluated each member of the

group to evaluate each member's strength. At the beginning of the assignment we were given practice codes and formulas to help us get a jump start on solving the problem. We used the information that was given to us, altered the code, and found a solution to the problem. Once the project was finished, we presented the information to other students that were in the room with us.

During the presentation, we read carefully designed slides to the audience. Our presentation was supposed to be less than ten minutes, it was. We altered between each slide and allowed questions at the end of each slide presentation. Once we noticed that no one in the audience had any questions, we continued with the project. In our project, we explained the how the concentration of air pollutant can cause damaging effects to humans and other molecules on earth. At the beginning of the assignment, we were given sample code to jump start the project. Using the code that was given, we created a chart that would display a graph showing the relationship between height and concentration. It the data that was displayed, we noticed that the higher the height, the lower the concentration was. The damage on humans would increase when the level of concentration would decrease. We also plotted a graph showing that information. Next, we displayed pictures on our slide showing just how pollution has a harmful effect on the atmosphere. Harmful pollutions come from many things such as factories, school buses, and motor vehicles. To help the atmosphere, its suggested to walk instead of riding in a motor vehicle.

Shortly after the modeling presentations, we were heading to speed networking session, which was also known as the, "Networking Best Practices to Optimize Scientific Discovery. During this session, we were told that we could print out resumes that we should present to mentors and business representatives that could help with internships and potential jobs. This session was one of the most interesting session because it allowed students to interact with other people on a business level.

After the networking session came to an end, we attended the "Science Gateway and You" session. During this session, there five panelist that were on a panel, explaining the importance of Science Gateways. There were a few questions that were asked to begin the session: What is your definition of a Science Gateway? What circumstances first led you to consider developing a gateway and what are your goal? There were many other questions that were asked along with those. During the session, each panelist had a total of sixty seconds or less to answer each question.

The "Science Gateway and You" session was very interesting and there was a lot of information shared from the panelist. They spoke from a higher perspective than the students, they also shared individual experiences to help the students gain full understanding of what was being asked. Shortly after the meet with the panelist, there was a PEARC18 reception. The purpose of the reception was mainly to finish the conference of strong. This reception helps to keep connections with the people that you met over the conference, you do things such as exchange emails and phone numbers. It is important to stay in contact with people that you network with.

Throughout the conference there were many quotes that were said. One quote was, "if I had more time and more money, this project would be completed." This made a lot of sense to us students after being timed to present some of the projects that were given throughout the conference. It was understood that with more time and money, things could get done more efficiently. Students attended the conference from Elizabeth-City State University, Mississippi Valley State University, Pittsburg State University, and Purdue University.

The hackathon was probably one of the most interesting sections of the PEARC conference. We were all given a project and had a total of 24 hours to complete the project. My group was given the Comsic2 gateway assignment. During our assignment, we had to complete a web-application project. We were instructed to use HTML to view a stack of 500-5000 images, and display them one at a time. Once the images were displayed, we were instructed to allow the user to insert and delete points via mouse click. Also, once the user inserted their points, they had the choice to submit those points, which would be returned to the user once the submit button was clicked. Although it seemed very stressful at first, the team came together and got the job done in the given amount of time. The conference was very exciting and we all had a lot fun.