

Kyanie Waters
SGCI Coding Institute
PEARC17 Report
17 July 2017

My PEARC17 Experience

Sunday, July 9, 2017 was an epic beginning for me and a journey that I would never forget. It started off with the student welcoming event at the PEARC17 Conference at the Hyatt Regency in New Orleans, Louisiana. The theme of the PEARC17 Conference was Sustainability, Success and Impact. PEARC17 reflects key objectives for those who manage, develop, and use advanced research computing throughout the nation and the world. The sustainability of the infrastructure environment, measuring and ensuring success for organizations that provide and use advanced research computing, impact of the technologies on the workforce and on science and scholarship.

When I arrived at the Practice & Experience in Advanced Research Computing (PEARC17) Conference, I attended the student welcoming reception. The reception was filled with information about the conference for the week ahead. Ms. Ester Soriano is the administrator for PEARC17 Students. Ms. Alana Romanella is the Student Program Chair and owner of PEARC17 students hosted this event. The event started off by giving the students questions to answer with prizes to follow. Following the question and answers game, we had a sheriff and retired warden discuss the safety tips concerning the city of New Orleans. “Never travel alone” and “Always keep your wallet in your front pocket” were two tips that they gave us that were most important for both women and men. He stated that walking with a cellular device in hand would only make that person vulnerable for people who steal to come and take it. They gave multiple examples about what could happen if you are not cautious about your safety. After the sheriff and retired warden finished talking about safety, we also had two women FBI agents by the name of Tracey Lin and Tracey Smith. They talked to us about cybersecurity. Cybersecurity is the state of being protected against the criminal or unauthorized use of electronic data. During their presentation they discussed crime, insiders, hacktivism, Terrorism, and warfare. Crime is done when individuals steal personal information and extort victims for financial gain which usually operates through online forums. Insiders are current or former employees who has or had authorized access but misuses it. Hacktivism is when an individual uses computer network exploitations to advance their political or social causes. Terrorism is when intrusions into government and private computer systems are made dealing with military, financial, and other top-secret information. Warfare is when nation-state or international organizations attack other nations computers or networks. Tracey Lin and Tracey Smith showed us many people who were jailed for cybercrimes, and what they did. They also encouraged me to learn more about cybersecurity and that it is a serious matter in the world today.

On Monday, July 10, 2017 my day was began with a python tutorial by Dr. Steve Lantz. Ahead of time we were told to download a data science ecosystem called anaconda 2.7 so that we would be able to apply the methods of which he was teaching in a hands-on practice. While in his tutorial, I learned about functions, objects, classes, lists, loops, and other python basics that would help me along the path of my career. I also learned that in python the most important thing to worry about is indentations. Indentation must be consistent throughout a python code or it will not run without errors. As the day went on, I volunteered for Ms. Lorna Riveria by collecting and inputting data into a computer from the surveys that individuals took at the tutorials they attended. I had a partner by the name of Aisha Motolani who helped me with the large amount of

papers we had to go through. In the process of gathering and inputting data into the computer, we used Microsoft Excel to input data. Later that night, there was the mentor dinner which was located at the Eight-Block Restaurant inside of the hotel. At this dinner, students met their mentors and became acquainted with them. My mentor was Dr. Sudhakar Pamidighantam who has been a consulting and research scientist for high performance computing and applications at NCSA for the last 14 years. He received his Ph. D. from University of Alabama at Birmingham after spending couple of preparatory year at Indian Institute of Science (IISc) Bangalore, after Graduating with a Masters from University of Hyderabad, India. Currently he is leading the middleware integration for ParamChem virtual organization, and continues to extend the services in Gridchem supported by US National Science Foundation. At the mentor dinner, we also had a Dell representative by the name of Anthony R. Howard come fill us with knowledge about his job and the reason for why he chose his traveling career with the Dell company. He was very passionate about his work and led me to think big and be creative.

Tuesday, July 11, 2017, my morning was kicked off with a band playing wonderful music while I was enjoying breakfast. They marched around the room so everybody could see them. Once breakfast was over I attended the student modeling day event where the students were assigned groups and had to pick a model out of the few that we had the option to choose from. Our main goal was to make modifications to models. My group chose the zombie model which was very interesting and fun to work with. Other groups worked with real world science rather than non-fiction science like my group. The goal for my group assignment was to make the zombies become more realistic and run simulations to test the results. After the student modeling event, there was a poster session where the students had to judge posters. At the poster session, I walked around and talked to some of the poster presenters. I made a hard decision of choosing one person to vote for. I learned about different interesting topics and situations that could be done to make the world a better place.

Wednesday, July 12, 2017, there was a mentor lunch where we once again could talk to our mentors and gain any advice from them. My mentor gave me advice on how to deal with adapting to new and unfamiliar places. He also told me to always be happy and cherish the moments that I have in the conferences that I attend. Later that day we attended the speed networking session, where students could talk to a representative from places such as Intel, Dell, Data Direct Networks, and NVIDIA to discuss what their interest and goals in life were for three minutes. The representatives had internship offers to consider and more facts available to learn more about their job or institute. That night I attended the visualization showcase and reception. I had the opportunity to vote on the best visualization showcase while enjoying delicious food.

Thursday, July 13, 2017, was the last day of PEARC17. The first thing that I did was attend the student modeling presentation session. At the student modeling presentation session students could present their models and demonstrate some of the coding and simulations they had worked on to complete their individual group models. That evening I attended the awards dinner, which recognized people for their outstanding achievements at the conference. At the awards dinner, Ms. Alana Romanella, Student Program Chair, and Ms. Maytal Dahan, Technical Program Chair, were given the honor to present the awards. The students were also able to take a group picture for memories of the PEARC17 conference. I was not looking forward to this day, because I would not see this conference again until PEARC18 in Pittsburg, Pennsylvania. It was an experience that was informational and hands-on. I would like to thank Dr. Linda Hayden for the opportunity to attend the PEARC17 conference. Without her I would not have been able to learn as much as I did over the course of the week.