Edsel Norwood

PEARC17 Conference Report

I believe that the PEARC17 conference was a very good experience for someone in the computer science community, especially students. The conference was filled with a friendly atmosphere and a crowd of highly intelligent people with a passion to learn. Overall, I think that the PEARC17 conference was a great event and had a very meaningful effect on my coming years in college. The conference consisted of a plethora of events for both vendors and students alike.

The first event that I attended was a Python tutorial in which students who haven't had any experience in the Python programming language would be taught the basics. The tutorial sessions were about one hour and thirty minutes. Given the limited amount of time, I think that the tutorial was well planned out and perfectly timed. The tutorial included lessons on how to import modules as well as create and call a custom or built-in function. Even though before the conference I had an acceptable amount of knowledge about Python I feel that the tutorial served its purpose because not all the students who attended the conference majored in Computer Science.

During the welcoming event, a couple of FBI agents came in and presented a PowerPoint on cyber-security. The PowerPoint cover multiple types of cyber-warfare as well as how one could protect themselves from possible data breaches. Hacktivism is the use of a computer network exploitation to advance one's political or social causes. Insider is when a current or former employee or business partner who has/had authorized access to a secured network and misuses it. Terrorism includes intrusions into government and private computer systems crippling the military, financial, and service sectors.

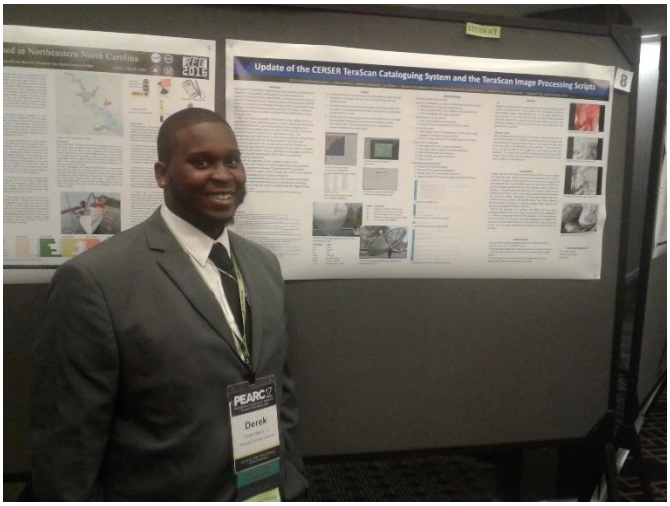
The student volunteer program at PEARC17 allow the students to help assist and supervise some of the tutorials and technical talks at the conference. Volunteering as a student added an interesting aspect to the conference. It was interesting to be a part of the inter-workings of such an eventful conference. During my volunteering shifts I got to meet other students as well as some of the presenters.

In my opinion, the student-mentor program was the single most helpful event for the students. The name of the mentor that I was paired with is Enrico Palmerino. Enrico's story was that of a college student who set out to own his own business. Throughout his college career, Enrico owned a total of about 5 different businesses. Although they were not all successful, a couple of them are still alive and thriving. One of them is ThinkLite, a company that focuses on cutting lighting cost around the world. At age 22, Enrico sold ThinkLite to pursue other business opportunities. Enrico is now the leader of a company by the name of StarFish. *A digital library enabling end-to-end life cycle management, Starfish provides control of unstructured files with complete visibility from creation to publication.*

Student modeling day was another event that help the students interact with one another. The object of modeling was that the students would split into groups and work together to solve and plot a scientific problem using python. The specific problem my group choose was the infection and immunity rate a malaria on a population of villagers as well as the spread of malaria amongst the mosquitos. For our problem set we started with a population of 1000 villagers and we created functions from each aspect of calculation. The function that I was tasked to build was a function that calculates the number of sick villagers throughout each iteration on the program. The function was built as followed:

```
def Sick_Villagers (i)
    sV[i+1] = sV[i]-(sV[i]*(midrV + drV))-(sV[i]*rrV)-((sV[i])*irV) + (hV[i] * brfM *
    (iM[i] / max(hM[i] + iM[i], 1)))
```

While coding the program my group found that there were multiple errors within the instructions of our problem. One of the errors was that after the program ran it would account for 101% of the villager population. We fixed this error by changing the recovery rate to a constant rather than a value dependent on the number of sick villagers. Another error was that after 1 day of infection the villager would either die, recover, or become immune. These errors made the problem unrealistic and my group agreed to fix these errors to make the result more reliable.



Another event that I attended at PEARC17 was the poster presentation. The event consisted of about 30-40 student posters. These posters were based off research that the students who were presenting them had done in the previous years. This event gave the students chance to highlight the results of their research to potential employers as well observe a fellow students research. I believe that this was a great opportunity for students to network with potential future employers as well as experience the event not only as a student, but also as a presenter.

In conclusion, the PEARC17 conference was a great experience for me. The student volunteer program was a great way to show the students what goes on behind the scenes. The student mentor program was good because it helped give students an idea of what to expect while working in the computer science industry. Even though the PEARC17 conference was the first conference of its kind I believe that it is a great start to a great experience.