

ACM-W Chapter of Southern Utah  
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Southern Utah University is located in rural Southern Utah, about halfway between Las Vegas and Southern Utah. Many of our students come from small high schools with fewer than 100 graduating seniors. The University has approximately 9000 students, 200 declared CSIS majors, 100 students a year that enroll in CS1 and approximately two dozen CSIS graduates a year. Our ACM-W chapter has about 10 members. Most chapter members are CSIS majors (CSIS is Computer Science/Information Systems; our school enjoys a joint department).

### **Essay**

Many in our rural community have not had an opportunity to develop an appreciation for math, science, and technology. Although they often have access to cell phones, the youth of the community go to high schools that do not offer calculus or programming. We continue to try to bridge the gap for these students and help them to appreciate these vital subjects regardless of which major they choose. Our primary community activity is currently participating in Red Riot, part of the prospective student program at SUU. At Red Riot, we introduce high school students to technology and computer programming with short, fun encounters expected to last approximately 5-10 minutes. We staff each Red Riot booth with 2-3 club members and teach people to program using the Sphero Spark+ and BB8 robots. Each activity has a simple challenge that encourages students to write approximately 5 lines of Oval code in order to win a fun-size candy bar. We integrate tablets and cell phones into these activities with the help of apps, letting everyone know that the ability to practice and program is easily accessible and not something that is out of their reach as many participants think when they first arrive. We have reached 294 community K12 students including 181 females and 155 students who have signed up for more information. There were a couple of times when we were so busy helping students learn to program that we might not have logged data, so these numbers are probably underestimates of the number of students who engaged for 5-10 minutes and wrote 6 or more lines of code; for many of these students this was the first time in their lives they had written any kind of computer code. We also have helped at community events such as the STEAM festival for approximately 2000 local K12 students, providing science fair activities teaching hummingbird robots to approximately 3 dozen students, and the Orchestra Jubilee festival. Our club members are kind and supportive, not making participants feel like they are doing something wrong but showing them that they are capable of amazing things which makes the participants smile and laugh, a feeling of a joy present not only in them but in what they are doing. This feeling of joy that accompanies our Red Riot events is what makes them so successful. This approach our members take toward teaching others leads to more interest in CSIS as well as gives the participants a feeling of accomplishment that they hadn't had before; it also gives the students in our community another idea for their futures that they may not have thought of before.