Benefits of Exposure Programs to K12 Student Interest in Computer Science

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This lightning talk describes the benefits of exposing K12 students to Computer Science through short camp programs. The CS@SC Summer Camps (http://summercamps.usc.edu), founded jointly with the Institute for Education, provide girls, minorities, and low-income K12 students with an opportunity to learn about Computer Science through one week camps held during summer. Now in our third year, the camps have given nearly 1500 students the experience of being in college for a week on campus at the University of Southern California, changing classrooms, eating at the dormitory cafeteria, seeing college students in their natural environment, and learning from current Computer Science majors. Students learn about Computer Science through programming platforms, including Scratch Jr. (K-2nd), Scratch (3rd-8th), Java (7th-12th), and Python (7th-12th). The camps are provided for free or reduced cost based on donations from individuals and organizations. Through camp surveys, student interest in STEM fields raises from around 50% of students highly interested to over 80% by the end of the camp. Although the camp is only 32 hours long, early exposure to Computer Science can provide students of all ethnicities (nearly 75% of the attendees are Hispanic or African American) and genders (47% of the attendees are girls) with the foundation needed to prepare them for making an educated decision about STEM careers.

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