Code Saves the World
February 1, 2020
STEM Family Workshop #1

Families worked on campus to learn and teach coding and its uses
Students gathered in a tech lab to learn how to write text-based code.
We began programming by learning *Gidget*, a simple grid-based game developed by NJIT professor, Michael Lee, and his colleagues and students.
Each student had a computer. The game was flexible, allowing them to progress at their own pace.
Students wrote code to move a player and complete tasks.
The game guided them to write increasingly complex code.
Ruiqi Shenn, an NJIT doctoral student in Informatics, was on hand to guide and teach Gidget.
Students then taught their parents the game and the step-by-step coding required.
Gidget is designed to teach students to troubleshoot and correct their coding errors.
The game emphasizes writing concise code that maximizes efficiency and brevity; mathematicians call this *elegance*. 
Because it is self-paced, some students and parents were able to complete many complex levels.
All students and some parents used VR goggles to learn about the binary number system.
Doctoral student Eric Nersesian, who developed the Binary game, taught students that orientation in space is a key aspect of VR technology.
Students and their parents learned coding in an engaging and thought-provoking way.
Doctoral student Ruiqi Shenn explained the game’s objectives to parents and students together.
Everyone was intent on completing as many levels of *Gidget* as possible.
A collaborative atmosphere prevailed as all teams worked to solve as many Gidget challenges as possible.
Students create the code that tells Gidget, the character in the center of the game board, how to complete a variety of tasks.
Everyone felt the satisfaction of a job completed well! Our families can continue the game at www.helpgidget.org