



Perform surgery or move shipping containers with new virtual reality program" 1:24



EDUCATION

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Learn to create virtual reality operating rooms, games and more with new program

BY ALEX HARRIS

aharris@miamiherald.com

A man in a black headset stepped on stage and started waving his arms around and pinching at the air. On a screen behind him, the crowd saw what he saw: surgery equipment and a patient draped in blue plastic with his throat sliced open to the bone.

The man in the headset waved his arms, and a screwdriver flew across the room and began screwing in a piece of hardware to the patient’s spine.

Then the operating equipment vanished and was replaced with stacks of pastel-colored shipping containers and a yellow crane.

“Here we are in the Port of Miami,” Mauricio Ferrazza, head of Miami Dade College’s Miami Animation & Gaming International Complex, told the crowd at the Beacon Council’s One Community One Goal Annual Report. Ferrazza began the video game and animation focused program, known as MAGIC, in 2015 and stocked it full of state-of-the-art technology and partnerships with industry leaders.

Wednesday morning Ferrazza (with the help of Alvaro, the man in the headset) introduced his program’s next step with a simulation of augmented reality — sometimes called mixed reality — where trainees could learn how to operate a crane at a port.



A screenshot of a surgery simulation developed by Miami Dade College's Miami Animation & Gaming International Complex.

MDC

MAGIC's new 15-credit certificate in virtual and augmented reality debuts this fall. In a virtual reality scenario, the viewer is immersed into a simulation that obscures their whole vision. In augmented reality, the person in the headset sees animations layered on top of their regular environment.

Students can learn how to create simulations that could be used in healthcare, architecture, shipping, the military and — of course — in video games.

"There are no limits to the possibilities," Ferrazza said.

Outside the ballroom, a handful of MAGIC students offer visitors a chance to see the onstage simulation for themselves. With a sleek Microsoft HoloLens headset slipped over their eyes, men and women in crisp suits swung their heads left and right and gaped in amazement at the virtual world in front of them.

"Make the loser L and pinch your fingers like you're grabbing an adorable child's nose," instructed Antonio Cardenas.

"I have a 7-year-old brother," he explained. "He's really cute."



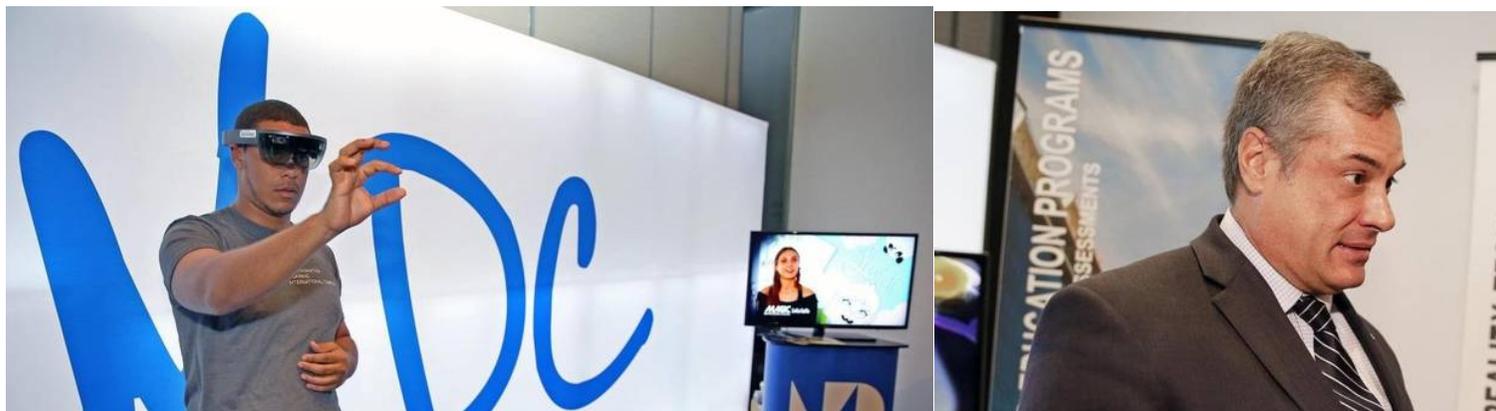
A screenshot of a surgery simulation developed by Miami Dade College's Miami Animation & Gaming International Complex.
C.M. GUERRERO - cmguerrero@elnuevoherald.com

Cardenas, 23, studies game design and animation at MAGIC. Although his animated short film proposal was one of the projects selected for full-scale production this year, Cardenas said he's tempted to take the certification course now that he's tried out the Hololens headset for himself.

If the flashy technology doesn't reel students in, Ferrazza tells them to "follow the money."

He wants his students to take advantage of an industry projected to be worth \$150 billion by 2020, and he wants to start at home. His program partners with Baptist Health to develop simulations, although MAGIC does not produce or sell them commercially.

"If I can convince all these industries that these simulations can cut costs and enhance sales, it triggers a lot of other industries to create jobs," he said. "That's the master plan."





C.M. GUERRERO. - cmguerrero@elnuevoherald.com

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