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Recent UVI Graduates Help Design Cyber Security Training and Competition for Middle and High School Students

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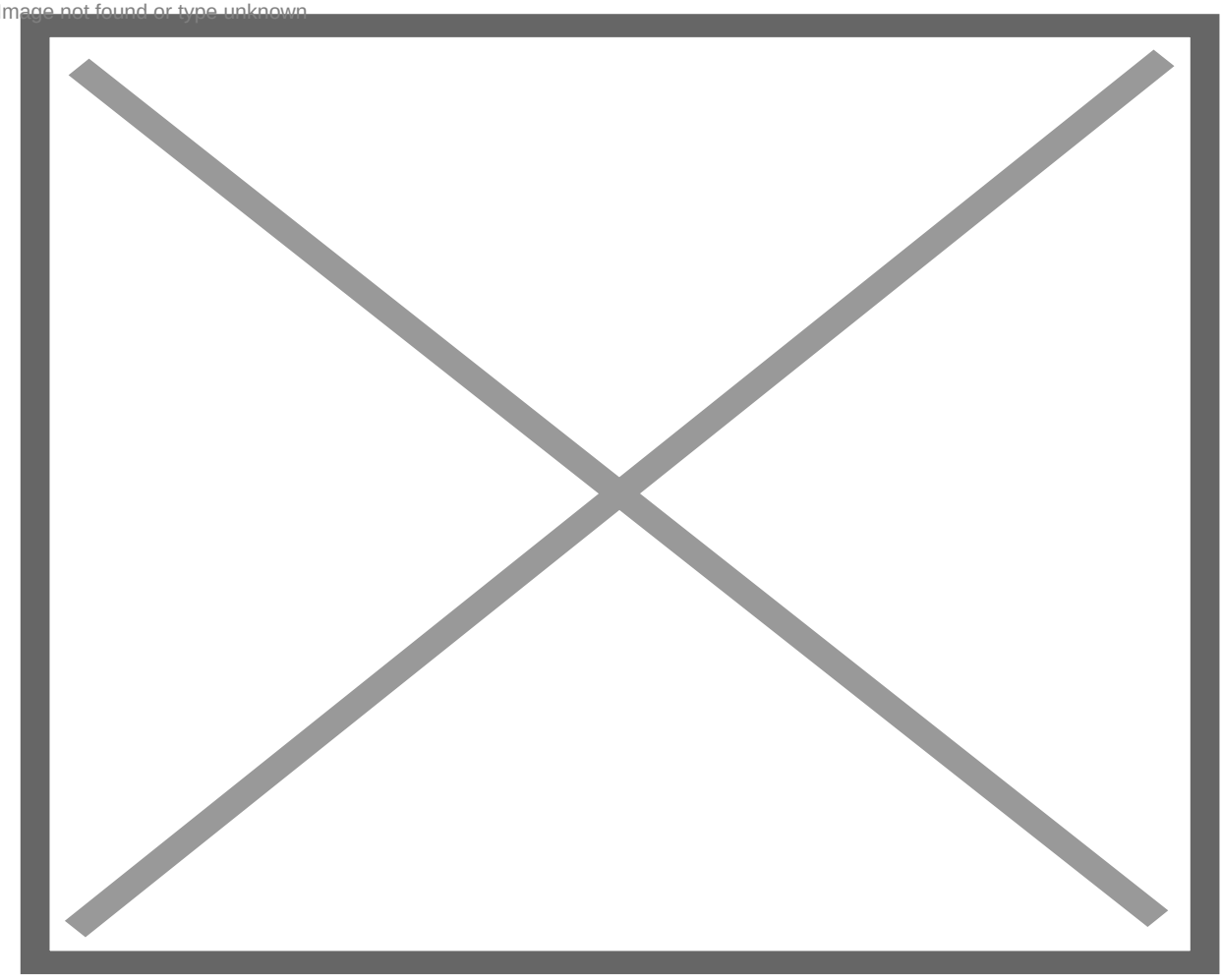

Three recent University of the Virgin Islands (UVI) graduates participating in a 10-week summer internship program at Sandia National Laboratories played an important role in developing a cybersecurity training program and competition for middle and high school students in the Virgin Islands and mainland U.S., UVI has announced.

UVI interns Jair Smith, Bashiri Smith and Lorenzo Laplace helped develop training materials and competition questions for the 41 participating students, including 24 students from six different public and private schools throughout the Virgin Islands, according to the release. The competition was part of the week-long Sandia Cyber Educational Training program (GET S.C.E.T) which took place online in July.

"The College of Science and Mathematics is very proud of the accomplishments of our graduates in this summer internship program and their contributions back to the Virgin Islands community. Because of their hard work and performance, Lorenzo, Jair, and Bashiri have strengthened our partnership with Sandia and opened new opportunities for the next generation of cyber defenders in the territory," said Dr. Michelle Peterson, interim dean of the College of Science and Mathematics.

Sandia National Laboratories, which provides cybersecurity for the U.S. nuclear energy program, offered the free training in support of the Air Force Association's (AFA) CyberPatriot program, the National Nuclear Security Administration Minority Serving Institution Pipeline Program (MSIPP) and the Consortium Enabling Cybersecurity Opportunities and Research at the University of the Virgin Islands (CECOR UVI). Its goal was to give students, especially minorities, a foundation in cybersecurity while preparing them for the AFA CyberPatriot competition.

"The training program was a creative experience for me to fine-tune learning material towards a different audience," said Lorenzo Laplace, who graduated from UVI in the Spring with a Bachelor of Science in Computer Science. "Most importantly, it was uplifting for others, mainly younger students who benefited in many ways from the material we put together," he said.

During the training, participants learned about topics including networking, scripting, Linux, Windows, and cryptography. Participants then used their new knowledge to take part in a Capture-the-Flag (CTF) against each other. A cybersecurity Capture-the-Flag is a competition in which participants use cybersecurity tools and

techniques to find hidden clues or "flags". Virgin Islands high school student Mirellie Boumedine won the competition. She is an 11th grader at VI Montessori School and Peter Gruber International Academy on St. Thomas.

Given the impact of COVID-19 on collaborative learning environments for students, the team at Sandia worked especially hard to make it possible for participants to get the most out of the program, according to UVI intern Jair Smith. One method was to include detailed video lectures, labs, and CTF questions on each topic to allow students to learn the material at their own pace. The interns manned a live support chat during the competition to assist students with questions about the lab content and CTF questions. Students were provided with virtual machines hosted by the University of New Mexico's Virtual Reality Lab to ensure they could learn the material and complete the questions.

In addition to partnering with Sandia National Laboratories, UVI CECOR also collaborated with Norfolk State University (NSU) this summer to host five UVI students for a seven-week internship at its campus in Norfolk, VA. UVI students Kenique Liburd, Chris Murphy, Shamir Smith, Amaia Nicole Saret and Rex Cauzabon III completed their internships on August 12. Also because of this partnership, two UVI alumnae, Angie Estien and Thalia Guadelupe, are pursuing graduate programs at NSU.

As part of a White House strategy to strengthen cybersecurity expertise in America, UVI was awarded a five-year, $1.3 million grant from the U.S. Department of Energy's (DOE) National Nuclear Security Administration (NNSA) in 2015. The UVI CECOR program's main objective is to develop future cybersecurity experts with the support of the consortium's K-20 education pipeline within the Virgin Islands, according to the release.