Broadening the Path to Cybersecurity Profession in Predominantly Undergraduate and Liberal Arts Institutions

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Cybersecurity is a broad, dynamic, and ever changing field that is difficult to be integrated into undergraduate Computer Science (CS) curriculum. In this poster, we will report our plan and progress on an ongoing NSF-funded three-year project. First, we develop manageable standalone course modules and labs to be integrated non-intrusively into the core Liberal Arts curriculum, and create two new Cybersecurity courses and a set of capstone projects for students motivated to pursue deeper Cybersecurity learning. With the Liberal Arts education in mind, these courses and modules will encompass law, policy, and societal impacts of Cybersecurity. Second, we use the Global Environment for Network Innovations (GENI) infrastructure in lab and project assignments to offer an active Cybersecurity learning experience for all students. This offers a solution to Predominantly Undergraduate Institutions that do not have the infrastructure or maintenance capability for sophisticated computer labs. This project is built on the collaboration between a Predominantly Undergraduate Liberal Arts college, Wofford College, and two primary research universities, Johns Hopkins University and University of South Florida that have well-known Cybersecurity programs.

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