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Presidential Cybersecurity Education Award

Nominee:

Benjamin Dougherty Secondary Level Ohio – West Chester & Liberty Townships Lakota Local Schools benjamin.dougherty@lakotaonline.com 513.874.5505

Nominator:

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Narrative 1 – Superior Teacher Accomplishment

Since launching in 2019, the Lakota Cyber Academy enrollment has grown to over 200 students, making it the largest program of its kind in the Midwest. The growth and success of the program is largely due to the contributions of high school teacher Benjamin Dougherty, who has worked alongside district officials, industry partners and other teaching faculty to build and expand this innovative hub for cybersecurity education. The curriculum, which features a three-year progressive course sequence, aligns with CYBER.ORG standards and includes dual enrollment with Sinclair Community College, an NSA Center of Academic Excellence.

Mr. Dougherty's innovative course framework stays ahead of rapidly evolving industry practices and needs through collaboration with industry partners and cybersecurity professionals serving Lakota's Cyber Academy Advisory Board. Cutting-edge technologies and best practices incorporated in the curriculum ensure students are prepared to enter high-demand careers in cybersecurity. Business professionals serving as mentors for every second- and third-year student in the program engage them in meaningful conversation about their curricular studies, providing connectivity to industry professional practices and answering questions about future career and educational opportunities. Mr. Dougherty provides additional real-world learning experiences for students through guest

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speakers representing a wide variety of cyber-related careers and on-site visits to local cybersecurity business units and higher education institutions.

Access to, and hands-on experience with, the most current technology and tools is a critical component of Lakota's Cyber Academy. Mr. Dougherty recently collaborated with the district technology team to redesign classroom lab spaces into both a learning lab and tools lab in both of Lakota's high schools. These state-of-the-art facilities offer Mr. Dougherty the ability to quickly adapt his curriculum to the ever-changing technology and best practices in cybersecurity education.

Mr. Dougherty contributes substantially to the future growth of the cybersecurity field through his participation in local, regional and national conferences. This summer, he presented a master class entitled "Adversarial Thinking in Cybersecurity" at the CYBER.ORG Cyber Education Discovery Forum. He is also training other high school teachers to teach cybersecurity as a member of the faculty for the National Cybersecurity Teaching Academy (NCTA) through DePaul University. Future plans include a presentation at the upcoming NICE K12 Cybersecurity Education Conference and the Cybersecurity Education Symposium.

For his excellence in cybersecurity education, Mr. Dougherty has been recognized nationally by premier cyber organizations. In June 2022, he received the inaugural Educator Award from CYBER.ORG. Additionally, the National Cyber League recently invited him to serve as a national coaching consultant.

Beyond the many measures of success indicated by student academic achievement described below, Mr. Dougherty's engaging approach to teaching is further evidenced by remarkable student recruitment and retention rates. As word spreads about this exciting course of study, student enrollment continues to grow, more than doubling in just three years. Over the life of the program, cohort retention has exceeded 50% and mid-year retention is close to 100%. Students strongly desire to join and stay in the Lakota Cyber Academy, due in large part to their exceptional teacher.

Narrative 2 - Students' Academic Achievement

Lakota Cyber Academy's secondary students consistently demonstrate their mastery of cyber knowledge and skills through their achievements in national cybersecurity competitions, consistently ranking on par with or above their collegiate counterparts. In 2021, 30 Lakota Cyber Academy students ranked in the top 50% nationally, with 12 finishing in the top 25%, of the National Cyber League competition for college cybersecurity majors.

Similarly, 33 Lakota students finished in the top 2% of the CyberStart America national competition - a competition with nearly 28,000 participants. Of these, over 50% of Ohio's qualifiers were from the

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Lakota Cyber Academy. Moreover, the number of Lakota students earning the rank of "national qualifier" exceeded that of the entire number of students qualifying from 33 different states! As a result of their competition successes, 13 Lakota students have earned prestigious national scholarship awards.

Lakota Cyber Academy student achievement is also evidenced by the growing number of highly-valued industry certifications acquired by students. Mr. Dougherty works directly with each rising senior to build a personalized "choose your own adventure" curriculum tied to industry certifications and a focus on a specific career area in cybersecurity. The final year of coursework is aligned with students' unique interests and goals and nearly all students graduate with college credit from a local community college, as well as key industry certifications including CompTIA Security+ and Ethical Hacker Pro.

Real-world learning opportunities are foundational to the Lakota Cyber Academy, and the number of paid industry internships garnered by Lakota students demonstrates their preparedness resulting from curricular and co-curricular experiences. Lakota Cyber Academy students are currently working as paid interns for well-respected companies such as Belcan, Fifth Third Bank, US Bank and GE Aviation. They are assigned to meaningful roles within each organization; for example, security operations; and detection, analysis, and response.

Mr. Dougherty inspires passion for the field of cybersecurity that extends beyond students' secondary experiences. Many of his students are pursuing cybersecurity and computer science majors at top-tier institutions including the Ohio State University, Purdue University and the University of Cincinnati. Additionally, several students received high-paying Cyber Analyst job offers from Fortune 500 companies directly out of high school and one graduate is currently pursuing a career in cryptology in the U.S. Navy.

Beyond academic achievement, a commitment to providing opportunities for students who traditionally have had barriers to employment in IT and cyber fields is a core principle of the Lakota Cyber Academy. To encourage more female student participation in the program, Mr. Dougherty supported the launch of a local chapter of Women in CyberSecurity (WiCyS), one of only three high school chapters in the country. Under his leadership, students also founded Lakota LoCS (Ladies of Cyber Security) and Lakota DiViC, focused on recruiting and supporting underrepresented students. These student organizations give young people valuable opportunities to develop leadership skills that will serve them in their future collegiate and career endeavors. They will also serve to further the development of a more diverse and equitable cybersecurity workforce.

To learn more about Mr. Dougherty's exemplary achievements from a student's perspective, please click <u>HERE</u> to watch this brief video.