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Collaborating for the Next Generation

Michigan High School Cyber Summit

Category: Cross-Boundary Collaboration & Partnerships

State: Michigan

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Contact: Jayson Cavendish
CavendishJ@michigan.gov

Executive Summary

With a negative unemployment rate, the cybersecurity workforce gaps are known, high risk across the country, including within state governments. To help address this risk, in 2023, Michigan launched its first ever High School Cyber Summit. The High School Cyber Summit connects students with industry professionals, colleges, and universities to learn more about cybersecurity as a career and related pathways. The event was the result of collaboration between several State of Michigan agencies and industry partners and higher educational institutes, including the Department of Technology, Management & Budget (DTMB), Michigan Economic Development Corporation (MEDC), Michigan National Guard (MING), Michigan State Police (MSP), Department of Labor and Economic Opportunity (LEO), and the Michigan Department of Education (MDE) and was similarly designed like the Michigan Cyber Summit. The inaugural event brought together over 400 students across Michigan to listen to a series of panels on various subjects, educating students on cybersecurity trends and best practices while showcasing a variety of career opportunities available and outlining the path to those jobs.

Cybersecurity is constantly transforming, with new developments and threats emerging each day. Next and future generations of the workforce need to be accounted for and included in discussions related to cybersecurity. According to the [U.S. Bureau of Labor Statistics](#), computer and information technology occupations is projected to grow much faster than the average for all occupations from 2022 to 2032, with a projected 377,500 openings each year. Providing high school students the opportunity to attend an event dedicated to cybersecurity increases awareness while highlighting cybersecurity careers and opportunities to attract the future workforce.

Project Description

Idea

Problem: Michigan has hosted the Michigan Cyber Summit for over 12 years with nearly 1,000 attendees annually, which has content geared toward working professionals, local entities, and other cybersecurity leaders. It did not offer a day specifically dedicated to high school students, resulting in requests for students to attend the Michigan Cyber Summit main day event. However, the content and format did not hold the attention of the students or provide content to encourage these students to pursue cybersecurity as a career. This sparked the idea to create a sister event geared toward high school aged students. The Michigan High School Cyber Summit allows students to partake in an event curated specifically for them about cybersecurity. Prior to the event, DTMB did not always have a direct path to interact with students. Reaching out to them to discuss and share experiences about cybersecurity can spark a student's interest in the field. Michigan's high school students are on the cusp of making crucial decisions about their future plans for furthering education, so having the ability to meet with them about cybersecurity can encourage cybersecurity pathways to increase the future workforce.

Why it Matters: The High School Cyber Summit provides students with the ability to attend a day that is specifically designed for them. High school students will be entering the workforce within the next decade. They are beginning to make decisions about their future, deciding what to study and what field to go into. Making connections with students and being able to speak to them to showcase cybersecurity help highlight it as a career, attracting the future cybersecurity workforce in Michigan. If students are not engaged, there is a missed opportunity to encourage cybersecurity and cybersecurity careers, resulting in a generation that is not engaged in securing the digital ecosystem. The future workforce needs to be accounted for to ensure the future of cybersecurity remains secure, which the High School Cyber Summit helps make possible.

What Makes it Different: The High School Cyber Summit specifically targets high school students, providing a one-day event that aims to provide them with pertinent cybersecurity information and knowledge while encouraging seeking education and career opportunities related to cybersecurity. The event provides students with knowledge while offering opportunities for students to directly connect with industry professionals and ask questions.

What Makes it Universal: Cybersecurity is a critical field that is always evolving, including in job growth. As a result, it is important that the next generation of the workforce is engaged and connected to cybersecurity to attract them to a cybersecurity career. Further, the High School Cyber Summit emphasizes the State CIO Top Ten Policy and Technology Priority of Workforce, as it aims to prepare the future workforce for a career in cybersecurity. High school students are still looking and thinking of where to go and what type of career to focus on. Introducing them to cybersecurity and connecting them with cybersecurity professionals helps put them on path to a career in cybersecurity, as helping future employment growth.

Implementation

The Roadmap: After the 2022 Michigan Cyber Summit, DTMB Cybersecurity and Infrastructure Protection (CIP) leadership wanted to create an event geared at high school students. To fulfill this goal, leadership help brainstorming session to determine what the event might include to best meet the interest and needs of the students. After securing event logistics, details were made about the number of sessions, social time with exhibits and sponsors, and plans for DTMB and other leadership to interact with the students.

To ensure the High School Cyber Summit remains successful, feedback will be obtained from those involved in the event and those who attend the event. An anonymous survey is sent out to event attendees (school officials and chaperones) and event sponsors to gain feedback for future years to ensure it remains as pertinent and useful to attendees as possible.

Involvement: The Michigan Cyber Summit Advisory Board plays a crucial role in decision making and offering ideas for the event. The board has members in various leadership positions across DTMB, Michigan Economic Development Corporation (MEDC), Michigan National Guard (MING), Michigan State Police (MSP), Department of Labor and Economic Opportunity (LEO), and the Michigan Department of Education (MDE). Meetings were held leading up to the event to discuss updates, make decisions, and brainstorm potential ideas to ensure the day would be a success.

The federal chief information security officer and deputy national cyber director, Chris DeRusha, also participated in the event. He provided informal remarks about opportunities in cybersecurity and the



The poster features a logo on the left with the text "MI HIGH SCHOOL CYBER SUMMIT" and "OCTOBER 19, 2023 Suburban Collection Showplace - Novi, MI". To the right is a line drawing of a diverse group of high school students. The main text in the center reads: "The 2023 Michigan High School Cyber Summit is scheduled for Thursday, Oct. 19, at the Suburban Collection Showplace in Novi, Mich." Below this, a paragraph states: "This NEW event will bring together over 500 high school students from across the state of Michigan to take part in a half-day event created to educate students on the topic of cybersecurity. The time is now to foster the next generation of cybersecurity professionals. The event has been designed to provide students with the opportunity to participate in sessions focused on showcasing the opportunities available in cybersecurity." A list of session topics includes: "Career pathways in cyber - It's the real deal!", "Cybersecurity in the age of AI", "Navigating cybersecurity with Accenture: From education to action", and "See the world through a hacker's eyes: An introduction to cybersecurity". On the right side, it says: "The event will begin at 9:30 a.m. and conclude at 2:45 p.m. Cost is \$35 per person and includes presentations, lunch, and visiting with exhibitors. You may register a maximum of 25 students plus one school representative per school. Seating is limited, secure your spot today!" At the bottom, it says "Register by visiting MICHIGAN.GOV/CYBERSECURITY".

Michigan High School Cyber Summit poster.

federal government. He sat with students at the event and interacted with them during the luncheon, adding more enthusiasm and excitement to the day.

The Michigan Council of Women in Technology Foundation (MCWT) remained an important partner for DTMB by sponsoring 100 female students, 25% of the attendees at the event. MCWT focuses on inspiring the women of tomorrow to make Michigan the top state for girls and women in technology, helping them consider, advance, and pursue a technology career in Michigan. Partnership with MCWT showcases the focus DTMB has on increasing diversity, equity, and inclusion, as the collaboration aims to help create a diverse cybersecurity workforce that makes the field equal, accessible, and welcome to all. The High School Cyber Summit also had several businesses and organizations as sponsors, including Accenture, Deloitte, MCWT, Microsoft, Merit Networks, Mavin SSG, and Google Mandiant. The sponsors were able to interact with students, sharing information about cybersecurity. Colleges and universities across the state were also able to participate, providing representation from six of Michigan's schools. This representation from Central Michigan University, Grand Valley State University, Eastern Michigan University, Michigan Technological University, Northwood University, and the University of Michigan allowed students direct interaction to ask questions while making connections to further their education. Michigan Air National Guard, CyberPatriot Midwest Colloquium for Information Systems Security Education (MCISSE), and OK2SAY also had tables at the event to engage with students.

To promote the event, it was shared on DTMB's Cybersecurity website, [Michigan.gov/Cybersecurity](https://michigan.gov/Cybersecurity), mentioned in several DTMB press releases, and included in email blasts about the Michigan Cyber Summit. The high school event was also shared weekly on DTMB's social media platforms, including LinkedIn, Facebook, and X (formerly Twitter).



DTMB used its social media platforms to promote the event each week.

How We Did It: To host the Michigan High School Cyber Summit, several steps needed to occur. Initial brainstorming sessions with leadership occurred to define and determine how to reach the high school demographic of Michigan residents. The day was planned to provide students opportunity to learn about some of the latest cybersecurity trends and developments while also offering students time to engage with sponsor exhibits, panelists, and leadership across various agencies.

The planning committee for the Michigan Cyber Summit also assisted in the planning for the high school event and included representation from budget and financial, communications, and external engagements and governance perspectives. The High School Cyber Summit was discussed weekly in meetings, with offline discussion and reviews also occurring to ensure the lead up to the event was moving smoothly. The Michigan Cyber Summit Advisory Board also provided various ideas and decisions where needed. Members of the board and planning committee also engaged with and reached out to businesses and organizations to encourage and share potential sponsorship opportunities for the event, highlighting the importance of being in front of the next generation for the workforce.

As the High School Cyber Summit was a brand new event for students across the state, it was intentionally designed. From the panel topics to the remarks from state and federal leaders, every element was carefully thought out to best relate and resonate with students. Having direct engagement with students was a crucial

piece of the High School Cyber Summit, as it allowed students to ask questions and learn about the different pathways to cybersecurity from public and private leaders.

Impact

What It Made Better: The High School Cyber Summit provides students the ability to hear directly from cybersecurity professionals. Students were able to hear about cybersecurity from leaders and professionals in the industry, including leadership at federal and state levels. The event provided students with the rare opportunity to connect with private business, colleges, universities, and others to discuss cybersecurity. Students were able to have direct interaction with leading technology giants in the industry and professionals who had various pathways into cybersecurity.

Before the event, there was not a large-scale event dedicated to cybersecurity for students across the entire state of Michigan. The High School Cyber Summit allowed DTMB leadership to engage with students and showcase the many paths and opportunities cybersecurity has to offer. Many of the newest members of CIP were also present to talk to the students about their experience as new cybersecurity professionals, sharing insight about why they chose the cybersecurity field and how they embarked their cybersecurity career. Students were able to ask questions throughout the event, gaining knowledge and answers directly from professionals. DTMB hosting the High School Cyber Summit showcases the commitment to the DTMB values of customer service and engagement, as DTMB team members provided student opportunity to learn about cybersecurity while directly engaging with and encouraging students to seek cybersecurity careers.

How We Know: The first ever Michigan High School Cyber Summit had over 400 students across the state in attendance, with MCWT bringing approximately 100 female students, and the feedback was overwhelmingly positive. Despite there not being a media advisory sent out for the event, Lansing area news channel [WILX provided coverage](#) on the 5 o'clock broadcast to showcase its success and the many different pathways to a cybersecurity career.

Following the High School Cyber Summit, surveys were sent out to attending school officials and chaperones to receive feedback to better improve the event. Of the responses collected, 100% agreed that the presentations met expectations and found the exhibits beneficial. 66.7% rated the overall conference as excellent, 22.22% as above average, and 11.11% as good. Feedback received from a student via an interview and from two chaperones at the event, detailed below, further emphasize the success the first High School Cyber Summit.



The High School Cyber Summit hosted over 400 students and was highlighted in DTMB's 2023 Year in Review.

“It is invaluable just to participate in some of these skills or experiences to gain the skills and really just grow from there.”

-Student attendee

“It was clear from the start of the conference that the State of Michigan DTMB Cyber Security leadership were very involved in ensuring the success of the conference. Thank you... for your leadership!”

-Chaperone

“The presenters were excellent. All were excited to be there and it showed. The high schoolers that I spoke to, including my son, were very engaged. There were lots of questions/answers and interactions which really connected the professionals to the high schoolers.”

-Chaperone

Sponsors for the High School Cyber Summit were also given a survey to complete. Of the responses submitted, 25% rated their overall experience at the event as excellent, 50% as above average, and 25% as good. 100% of the sponsors responded that they would recommend sponsorship of the event to other colleagues.

What Now: The High School Cyber Summit will be an annual event for students held in conjunction with the Michigan Cyber Summit. Discussions are underway about the integration of the high school event and the Governor’s High School Cyber Challenge, which had 85 schools participate in 2023. The High School Cyber Summit will continue to be an engaging event for students to learn about cybersecurity, providing opportunity for interactions, connections, and resources for the next generation of the workforce.

Conclusion

The 2023 Michigan High School Cyber Summit was a successful event that brought together over 400 students across the state to learn about cybersecurity. The event included panels on a variety of topics, allowed for students to interact with cybersecurity professionals and leaders, and offered time for students to visit exhibits from various businesses, organizations, colleges, and universities. The collaboration between agencies within the State of Michigan was imperative to creating an event specifically for high school students, as it brought new ideas that were integrated into the event and provided students with additional opportunities to learn about the various cybersecurity pathways and careers while sharing how students can help strengthen the digital ecosystem.