MSC Student Awarded Best Student Poster at the 2021 COE Summit.  
MSC research assistant Jonathan Adamson ranked 1st Place in the COE Summit Student Poster Competition held virtually on May 17-21, 2021. Out of 34 poster submissions received from across 12 Centers of Excellence (COE), Jonathan received the highest scores for his poster presentation titled "Qualitative Identification of Fentanyl and its Analogs by use of Functionalized Carbon Quantum Dots." Jonathan's research focuses on the use of Carbon Quantum Dots as a less expensive, safer, and more effective method for detecting fentanyl and fentanyl derivatives at U.S. Ports of Entry. To review a copy of Jonathan's poster (#32), together with the other COE student poster submissions, please visit: https://gmucina.eventshowcase.com/GMUCINA/public/events/gmucina/app/event.html#ui4nvhleyJuXYiOjJhcHAuZXZlbnQudmlld1Bvc3RlcnNMacSYIn0!=ui4nvh

MSC Student Alumni Discuss their Careers with USCG and NUSTL in COE Student-Focused Workforce Development Panel. Former MSC graduate fellowship students Grace Python, Operations Research Analyst, USCG Research and Development Center, and Blaise Linn, Engineer, National Urban Security Technology Laboratory (NUSTL) met with COE students in a COE Summit panel held on May 18. The objectives of the "Finding a Place in the Homeland Security Workforce" panel were to connect students with professionals working within the Homeland Security Enterprise and to expose them to the diverse career paths and occupations available to them within the homeland security space. Together with the other panelists, Grace and Blaise discussed their educational backgrounds, their roles and responsibilities within their organizations, their job tasks, as well as provided advice and insight into preparing for and landing a job within the homeland security workforce. The panel was moderated by Kelli Norton, Mass Communications graduate student and research assistant at Oklahoma State University and the BTI COE.

Summer Research Students Conduct Research in Maritime Cybersecurity, MISLE Data Visualization, Hazmat Cargo Inspections, and other USCG Related Topics in the 12th Annual Summer Research Institute. Students in this year's virtual MSC Summer Research Institute are learning to conduct research while working on projects in collaboration with the Center's DHS and USCG stakeholders. This summer, the MSC is hosting 14 students representing four universities, including two Minority Serving Institution Summer Research Teams (MSI SRT) from

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Norfolk State University and North Carolina Central University. The topics for this summer's projects include the following:

- **BlueROV** - Students are working to advance the capabilities of a custom-designed underwater ROV for use in the inspections of ship hulls, ports, piers, and ATON.
- **Understanding Cybersecurity Risk in Offshore Windfarms** - Students are assessing the potential for cybersecurity vulnerabilities in offshore windfarms and the threats that these may pose to maritime operations and the electric power grid.
- **Improved USCG HAZMAT Container Inspections** - Students are analyzing USCG MISLE data together with other data sets to identify potential improvements in targeting inspections of hazardous cargo.
- **Geographic Information Systems and Data Visualization** - The student and faculty team are assessing data collected as part of the MSC's VTS radar project together with MISLE data to visualize reported maritime incidents that may have gone undetected by VTS radar systems due to vessel size.

SRI guest speakers to date have included Mr. Bert Macesker, Executive Director, USCG RDC, Mr. Lew Lewandowski, Chief, Environment and Waterways Branch, USCG R&D, Mr. John Hillin, Safety and Security Division Chief, USCG Sector NY, Mr. Kevin Adams, Marine Transportation System Cybersecurity Specialist, USCG First District, and Ms. Stephanie Okimoto, Director, DHS S&T International Cooperative Programs. Additionally, the student teams have met with Dr. Gary Kessler, author *Maritime Cybersecurity: A Guide for Leaders and Managers*, and with USCG Sector NY Waterways Management personnel.

If you are interested in learning more about the SRI student research projects or would like to participate in the program's weekly project status update sessions, please contact Beth Austin-DeFares, MSC director of education at [MSC@stevens.edu](mailto:MSC@stevens.edu).

**Cybersecurity Student Gains Practical Work Experience during an Internship with USCG Sector NY.** MSC's Summer Research Institute student Tara McLoughlin has been afforded the unique opportunity to apply her cybersecurity skills in a field-based internship with the USCG Sector NY. Since starting her internship in May, Tara has observed USCG marine safety personnel conduct facility inspections and recently joined a response team in their inspection of a vessel following reports of a possible cyber breach. As part of her internship tasks, Tara is reviewing cybersecurity plans and meeting with terminal operators and maritime industry partners in the Port of NY/NJ to better understand their cybersecurity procedures and preparedness. At the end of her internship, Tara will provide Sector NY with a report on cybersecurity best practices, a cybersecurity checklist for marine inspectors, and recommendations for cybersecurity training programs.