

# MarTREC

Maritime Transportation Research & Education Center



## **Kaley Collins**

### **MarTREC's Outstanding Student of the Year**

As a current graduate student in the Steel Structures Research Lab at the University of Arkansas, Kaley is working to make critical port structure more reliable through research on modeling combined storm surge and wind demands during extreme meteorological events such as hurricanes. While an undergraduate Civil Engineering student, Kaley performed an honors research project characterizing 3-D printed steel material properties. Kaley anticipates completing her M.S. in Civil Engineering, May 2021. After graduation Kaley will continue on for a PhD, and she intends to pursue a career in the private sector.

Kaley's thesis title and summary "Port Infrastructure Resilience through Combined Wind-Surge Demand Characterization." This research seeks to understand the interactive effects of severe wind and storm surge demands on port infrastructure, and to develop hazard demand models to aid improvements to infrastructure design resilience.

Kaley's interests and engagement outside of research and academics are broad: She participated on the University of Arkansas Ranch Horse Team for four years; served as a Student Ambassador and Honors College Ambassador, and as a member of the Academic Integrity Board and the Student Conduct Board, was active in Chi Epsilon Civil Engineering student service organization, and participated in other student societies.

For the past 29 years, the U.S. Department of Transportation (USDOT) has honored an outstanding student from each active University Transportation Center (UTC) at a special ceremony held in conjunction with the TRB Annual Meeting. Due to the impact of the coronavirus pandemic (COVID-19), a virtual awards ceremony was held January 6, 2021.

Kaley was nominated by her advisor Dr. Gary Prinz, Associate Professor, University of Arkansas and Dr. Heather Nachtmann, Director of the Maritime Transportation Research and Education Center also at the University of Arkansas.