



Cleveland State University

SKYE A. CARLSON was appointed by Governor Mike DeWine, as a student trustee member on November 8, 2024 for a two-year term ending May 1, 2026.



Ms. Carlson is pursuing a Doctor of Philosophy in Applied Biomedical Engineering at Cleveland State University (Dr. Eric Scheerer, advisor). She received her Bachelor of Science in Engineering Science and Mechanics, with minors in Biomedical Engineering, Math and Physics from the Virginia Polytechnic Institute and State University.

Ms. Carlson's research experience includes service as a graduate research assistant at the Center for Human Machine Systems (CHMS), where she works alongside students at Rice University, to develop a control system that balances the use of functional electrical stimulation with a robotic upper arm exoskeleton, coding in C++ and MatLab, and implementing machine learning algorithms such as Gaussian Process Regression to update muscle models to improve and maximize functional electrical stimulation effectiveness, among other notable research.

She interned at The Institute for Rehabilitation and Research (TIRR) Memorial Hermann Hospital, in Houston, Texas, and received the Graduate Student Leadership Award from CSU's Department of Mechanical Engineering, and the Dan. H. Pleta Award for outstanding senior project (Virginia Polytechnic Institute).

Ms. Carlson is the president of the CSU student-led organization, Spinal Cord Injury Volunteer Corps, and is a trained facilitator having led the NRT 2023 Research Retreat with twenty professors to discuss and problem-solve foreseeable challenges in allocation of grants funding and program requirements. She has co-authored articles for the *2022 International Conference on Rehabilitation Robotics* and *IEEE Transactions of Neural Systems and Rehabilitation Engineering*, as well as presenting at conferences (American Society of Biomechanics) and as a panelist ("Assistive Technology and the Future of Spinal Cord Injuries" and for National Biomechanics Day). In addition, she is a part of a team for the Implant Device for Plantar Repair (patent pending).

Ms. Carlson was the program director at Washington Sailing School in Alexandria, Virginia, where she designed lesson plans and taught children the skills to sail various boats (2014-2021).