Megan S. Anderson
ARCS-MWC Chapter Scholar
2nd year scholar, PhD Candidate, Mechanical and Aerospace Engineering from George Washington University

Research:
Megan’s research uses ultrasound to measure the mechanical properties of biocompatible hydrogels, developing a non-destructive characterization method. Ultrasound is also used to vaporize droplets in those hydrogels, exploring a non-invasive payload delivery method.

Describe the expected benefit of your research to society:
The research will offer fundamental knowledge of acoustic droplet vaporization in 3D-printable biomaterials, potentially offering new targeted therapeutic delivery systems for payloads such as growth factors and cancer drugs.

Indicate how an ARCS award will benefit your research:
My experience with research has been inseparable from the scientific community. As an undergraduate student, I had the opportunity to present at national and international conferences through the Society of Physics Students. This motivated me to invest more time in research and, eventually, decide to pursue graduate school. Meanwhile, I met a supportive and diverse network of people, gaining friendships and insights. Now, as a PhD student who is passionate and yet new to the field, I have continued to look for and find motivation through scientific societies. The ARCS award resonates with me because I see it as the perfect support at a time in my career; support from an organization that encourages research by encouraging researchers, both relieving them of financial stress and enfolding them through community.

Career objectives:
My dream job would be to run a government or industry lab at the interface of research and application while staying highly involved with the scientific community through the organizations (such as the Society of Physics Students, Society of Rheology, and Acoustic Society of America) that have inspired me.

Megan’s Recent Publications