

I'm John Crosby, a senior at the University of Nevada, Reno, majoring in mechanical engineering with a minor in mathematics. I'm working with the Nano-Thermal-Mechanical Engineering Laboratory on examining cross-plane thermal conductivity in graphite using molecular dynamics simulations. My project aims to maximize cross-plane thermal conductivity, which will be very useful for applications in NASA's thermal management instruments. I've so far proven a linear relationship with thickness and cross-plane thermal conductivity in graphite, and am examining the effects that adding different materials to graphite will have on this linear relationship. I've been accepted to and plan to attend graduate school for mechanical engineering at UNR, where I will continue my thermal transport in nanomaterials research in my master's thesis. After graduating, I hope to work in the research and development of thermal management solutions for high-power electronics.