John Ajayi, University of Connecticut, Storrs, CT, for his project: Reconstructing Paleo-elevation of Taiwan Orogenic belt using Isotope Geochemistry of Fluvially-exported Catchment-integrated Organic Molecular Biomarkers.

John Ajayi is a Ph.D. student at the University of Connecticut where he works under the supervision of Dr. Michael Hren to apply a novel approach for reconstructing the paleoelevation of mountain belts. His study area-Taiwan is located at the site of convergence between the Eurasian and the Philippine Sea Plates. The Taiwan orogen is an archetypal example of an arc-continent collision, thus serving as a model for studying such systems in the world today. However, constraining the height of the mountains through time is very challenging. Generating records of the paleotopography of mountains is very important to understand the feedback between atmospheric and climatic dynamics, deep Earth tectonic processes, and surface weathering and erosion. The height of the mountain represents a balance between these.

John’s project involves using the organic molecular hypsometric approach established for modern Taiwan to reconstruct the paleotopographic history of the orogen in the last 3 Ma. Empowered with this tool, he will also provide an along-strike orogenic reconstruction of the mountain paleoelevation to investigate the two tectonic evolution models proposed for Taiwan which have generated debates within the scientific communities.

Before joining UConn, John completed his bachelor’s degree at the Federal University of Technology, Akure in Nigeria. He seeks to become a versatile geochemist, using his knowledge of geochemistry and geochemical patterns to unravel complex questions in Earth sciences. When he is not working on his research, he spends time outdoors with family and friends and loves visiting new places.