

Abby Gillen, Oregon State University, Corvallis, Oregon, USA for their project: *Partial Edifice Collapse and a Major Explosive Eruption at Volcán Ticsani, Southern Peru: Stratigraphic and Geochronologic Constraints*.

I am a third-year PhD student working with Dr. Shan de Silva at Oregon State University. My research focuses on Ticsani, a Central Andean volcano that has produced a large ($VEI \geq 4$) dacitic eruption of suspected late Pleistocene-Holocene age that may be linked to partial edifice collapse. The goal of this study is to use zircon double-dating (U-Th disequilibrium combined with (U-Th)/He dating) to obtain absolute ages that will be combined with geochemistry and field observations to trace the evolution of Ticsani through time. Central to this goal is testing our hypothesis that the major eruption resulted from edifice collapse. The required fieldwork is directly supported by this GSA Lipman award. A timestamped model for Ticsani will aid hazard assessments and provide a framework to address broader questions about the post-collapse evolution of volcanic systems.



My passion for geology began at Spokane Falls CC where I completed my first research project. Alongside citizen scientists I monitored the effects of sediment pollution on the Spokane River and found that I really enjoyed conducting research outdoors. I transferred to Oregon State University where I earned my bachelor's degree and began studying the Ticsani volcanic complex under the guidance of Dr. de Silva. My graduate research expands on that work and also explores the use of Ticsani as an Earth analog for Venusian “pancake” domes.