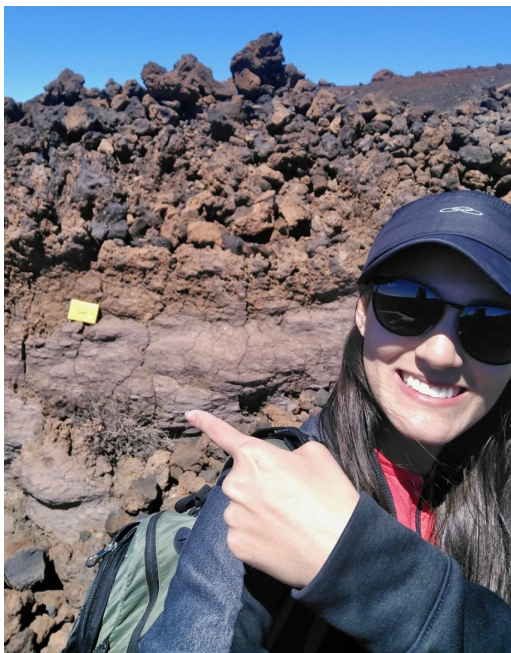


**Maria Clara Murta**, University at Buffalo, Buffalo, NY, for her project: *Investigating shallow conduit physical properties and processes at scoria cones in the Southwest Utah volcanic field, USA*



Maria Clara Murta is a third-year PhD student at the University at Buffalo, supervised by Dr. Greg Valentine. Her research focuses on macro- and micro-textures of volcanic bombs from five scoria cones in the Southwest Utah volcanic field, particularly analyzing vesicle shapes and populations. This study aims to understand the physical properties of shallow magma residing at the top of the conduit during Strombolian eruptions. By combining vesicle analysis with porosity and permeability measurements, Maria Clara seeks to determine whether shallow "plugs" were present—possibly modulating eruption

explosiveness and dynamics.

With support from the Lipman Student Research Grant, she is conducting fieldwork in Utah to collect bomb samples, document the stratigraphy of pyroclastic deposits, and perform lab analyses at the University at Buffalo. The grant also supports a research visit to the Cascades Volcano Observatory, where she will collaborate with scientists and use their lab facilities.

Maria Clara graduated with her BSc in Geology from the Universidade Federal de Minas Gerais, Brazil, in 2019, and completed her Master's in Volcanology and Regional Geology there in 2022. She is passionate about learning more about the processes that govern monogenetic volcanic centers and is deeply grateful for the support of the Howard and Jean Lipman Foundation and the Geological Society of America's Mineralogy, Geochemistry, Petrology, and Volcanology Division in advancing her research.