

Morgan Harris, Vanderbilt University, Nashville, Tennessee, USA for their project: *Ejected fragments of magma mush in the Fish Canyon Tuff (Colorado, USA).*

I am a first-year Ph.D. student at Vanderbilt University advised by Dr. Guilherme A. R. Gualda. My research focuses on studying crystal-rich magma mush through mineral compositions and textures in both volcanic and plutonic deposits. I characterize coarse-grained, crystal-rich, glass-bearing clasts, interpreted as magma mush fragments, within the Fish Canyon Tuff, Colorado, USA, an ~5000 km³ ignimbrite. I am particularly interested in characterizing granophyric clusters (intergrowths of quartz and alkali feldspar) found within these magma mush fragments to investigate how granophyric texture is related to the formation and thermal evolution of magma mush. I also characterize a mafic magmatic enclave within the Equigranular Half Dome Granodiorite in the Tuolumne Intrusive Complex, California, USA. I interpret rock textures, plagioclase and amphibole compositions, and amphibole geobarometry as evidence of magma mingling and mixing before/during pluton emplacement in the Tuolumne Intrusive Complex.



The Lipman Research Award from the Howard and Jean Lipman Foundation will provide funding to analyze plagioclase, amphibole, alkali feldspar, and biotite trace element and isotope compositions for this mafic magmatic enclave and surrounding granodiorite, furthering the characterization of this enclave and the magmatic history of the Tuolumne Intrusive Complex.

I received my B.S.G. in Geology in 2023 from the University of Alabama, and my M.Sc. in Earth and Environmental Science in 2026 from Vanderbilt University, also under Dr. Guilherme A. R. Gualda. I am incredibly grateful for the Mineralogy, Geochemistry, Petrology, and Volcanology Division of the Geological Society of America and the Howard and Jean Lipman Foundation