Jacob Klug, University of Wisconsin-Madison, for his project: *Magma mixing and explosive eruptions at Planchon-Peteroa Volcano, Chile revealed through minerals and melt inclusions*

Jacob Klug is a PhD student at the University of Wisconsin-Madison. His work is being completed under the guidance of Dr. Bradley Singer. He is currently studying two active volcanic systems in Chile, Planchon-Peteroa volcanic complex and Villarrica Volcano. The broad goal of both studies is to better understand the growth history, geochemical evolution, and the role of volatiles in each system. He will use funding from the Lipman award to measure mineral compositions in Holocene tephras from Planchon-Peteroa with the aim of constraining magma storage conditions, compositional evolution, and timescales of destabilization. In the past he utilized funding from the MGPV division for SIMS measurements of H_2O, CO_2, and trace element concentrations of melt inclusions in plagioclase, quartz, and olivine from Laguna del Maule. Trace element and volatile concentrations were used to characterize reservoir pressure conditions, magma recharge, and rhyolite generation.

In 2019 Jacob obtained a master’s degree from the University of Wisconsin-Madison. Prior to attending the University of Wisconsin-Madison he got his undergraduate degree in Geology at St. Norbert College in De Pere, WI. He decided he wanted to pursue a graduate degree studying the geochemistry and petrology of volcanoes after a field trip to Nicaragua peaked his interest. In his free time he enjoys hiking, fishing, and spending time with family and friends. He would like to thank both GSA Lipman Research Award and the MGPV division for supporting his research.