Yuhang Ren, University of Utah, Salt Lake City, Utah, USA for their project: *First-Row Transition Element Ratios as Indicators of Mantle Source in Intraplate Basalts.*

Yuhang Ren is a Ph.D. student in Geology in the Department of Geology & Geophysics at the University of Utah, where he is working with Dr. Sarah Lambart in the MagMaX Lab. He received his B.S. in Geology from China University of Geosciences Beijing in 2025. His research focuses on using elemental and stable isotope geochemistry to investigate mantle processes, magma genesis, and the evolution of Earth's interior.

His current research examines the origins of continental intraplate basalts in the western United States. In particular, he studies first-row transition elements (FRTEs; Sc–Zn) in olivine as tracers of mantle source mineralogy, redox conditions, and metasomatic processes. By comparing volcanic fields influenced by mantle plumes, hydrated mantle sources, and lithosphere–asthenosphere interaction, his work aims to determine how mantle heterogeneity, recycled components, and lithospheric metasomatism contribute to intraplate magmatism. This approach is especially useful because conventional geochemical tracers can show overlapping signatures among different mantle sources. His research combines petrography, electron probe microanalysis, LA-ICP-MS trace-element measurements, whole-rock geochemistry, and petrogenetic modeling.

Yuhang's long-term goal is to use elemental geochemistry combined with non-traditional stable isotopes to better understand magmatism, mantle dynamics, and the evolutionary history of Earth and other terrestrial planets. The Howard and Jean Lipman Foundation Research Award will support analytical work central to his current project and help develop new geochemical tools for distinguishing mantle sources beneath continental volcanic regions.