
Staff Hydrogeologist

Expertise	Numerical Modeling, Data Analysis, Geophysics
Education	M.S. (Hydrology), 2024 Colorado School of Mines, Golden, Colorado, USA B.S. (Physics), 2020 California Polytechnic State University, San Luis Obispo, California, USA
Honors	FROST Scholar (2018)

Professional Experience

2025 – Present	ITASCA Denver, Lakewood, Colorado Staff Hydrogeologist
2024 – 2025	ITASCA Denver, Lakewood, Colorado Intern Hydrogeologist
2022 – 2024	Colorado School of Mines, Geophysics Department, Golden, Colorado Research Assistant
2021 – 2022	IDEX – Advanced Thin Films, Boulder, Colorado Technical Writer
2019 – 2020	California Polytechnic State Univ., Astronomy Dept., San Luis Obispo, CA Research Assistant
2018 – 2018	California Polytechnic State Univ., Geophysics Dept., San Luis Obispo, CA Research Assistant

Project Experience

Numerical Modeling: Performed modeling of a distributed magnetic sensing (DMS) optical fiber to external magnetic fields. Additional modeling included the required sensitivity of the fiber to be used in saltwater intrusion, lithium brine, and mine drainage monitoring.

Data Analysis: Acquired data from the DMS fiber in two field experiments and performed processing and analysis of the signal to compare to a traditional geophysics TEM survey, determining if the DMS fiber was effective enough to capture similar variation in the subsurface. Analyzed the signal in the time domain and frequency domain using acquired lab data, which increased the fundamental understanding of the fiber behavior.

Geophysics: Performed field work with electrical resistivity and refraction seismics in multiple locations in California. In one location, worked with the USGS to determine the extent of a subsurface confining layer. Also assisted running a geophysics field camp, teaching students how to use TEM, seismic, and distributed fiber optic sensing (DFOS) methods.