Cissy Ming, Virginia Polytechnic Institute and State University, Blacksburg VA, for her project: A tale of two reservoirs: Geochemical drivers impacting effectiveness of hypolimnetic oxygenation for manganese treatment

Cissy Ming is a second-year master's student advised by Madeline Schreiber in the Department of Geosciences at Virginia Tech. Her work focuses on manganese (Mn) oxidation and reduction processes in drinking water reservoirs with hypolimnetic oxygenation systems. A relatively novel water treatment method, hypolimnetic oxygenation provides a promising alternative to traditional Mn removal procedures in drinking water plants but has shown mixed results in Southwestern Virginia reservoirs. Cissy hopes to determine whether reservoir geochemistry influences the success of hypolimnetic oxygenation in these reservoirs. The Lipman Research Award will fund ongoing monitoring and sampling at her two reservoir field sites, in addition to laboratory supplies. At Virginia Tech, she participates in the Outdoors Club, Graduate and Professional Student Senate, and her department's graduate-undergraduate mentoring program. After graduating, she hopes to work for an environmental agency or enter consulting.

Cissy is from West Chester, Pennsylvania, in the suburbs of Philadelphia. She holds a B.S. in geosciences from Penn State University, where she applied as a geosciences major after reading "Annals of the Former World" by John McPhee. Since reading McPhee's travelogue on the geology of North America, she has dreamed of replicating his journey across the continent. In her last year at Penn State, she completed her undergraduate thesis on magmatic processes at Momotombo Volcano and presented her research at GSA Connects in Fall 2020.

In her free time, she enjoys hiking, cooking, reading and visiting museums.