Sarah Paschal Gerenday "Why I Want to be a Geologist" Rice University

I have been drawn towards the natural sciences for as long as I can remember. Geology in particular has always appealed to me in part because it is so tangible regardless of where I go. Growing up in Tennessee, I was fascinated by the road cuts exposing the shallow limestone bedrock, especially when groundwater trickled out. Even more wonderful were the Smoky Mountains and various state parks where my family and I camped and hiked among massive boulders and ever-changing waterfalls. There is great beauty in the Earth and in studying it. When most academics say that their field of study is beautiful, they seem to be appreciating its unique way of explaining some aspect of the world. Geology is special to me because it encompasses the physical beauty and majesty of a planet that has been in motion for billions of years before we existed together with the endless pursuit of understanding that scientists love.

Today, I am privileged to have the opportunity to study Earth Science at Rice University. I am currently a junior, and having completed the core courses required of all Earth Science majors, I am delving into more advanced material in topics such as petrology and siliciclastics. Additionally, I am in the preliminary stage of selecting an honors thesis topic for next year, potentially pertaining to environmental geochemistry. I have been especially interested in environmental applications of geology ever since last summer when I interned in the Applied Geosciences and Environmental Management division of Argonne National Lab. My division's function was to identify and remediate former grain storage sites where the fumigants used had contaminated the soil and groundwater. While interning there, I was able to see firsthand how essential understanding the local geology is to dealing with the contaminants.

My time at Argonne helped me realize that though the Earth may seem immense and indifferent, we are in constant and direct interaction with it, which has consequences for the natural world and ourselves. As a geologist, I wish to apply my skills to ensuring that the natural

environment is as healthy as it can be and that the people who depend on it can live and work in safety. This requires understanding how the Earth functions so that we can determine which activities are appropriate where and how to repair the damage when things go wrong. I believe that our society and environment have a great need for this, and I hope to provide a service to both throughout my career.