Ryan Shamet

Ph.D. student, Civil Engineering University of Central Florida Sinkhole Conference paper: *Development of Sinkhole Raveling Chart Based on Cone Penetration Test (CPT) Data*

Ryan Shamet's study of civil engineering was an unexpected passion. Growing up in Central Florida, he noticed the variations of "dirt," and spent a lot of time visiting and exploring the region's famous freshwater springs. These hidden oases instilled in him awe and curiosity at these relentless fresh, crystal-clear water sources. During his third semester at the



University of Central Florida (UCF), his childhood interests were reignited when he began studying and researching soil variations and geologic formations, and how engineers can effectively design foundations, roadways, and earth-structures to minimize the risk of soil-failure in the most economical ways. Currently, Mr. Shamet is researching sinkhole mechanisms and engineering in karst geology. He recognizes the imperative need for effective engineering in karst geology in Florida. He loves working with team members from various disciplines and cultures. After graduation, he hopes to continue learning as a researcher in a national or international setting. The broad expanse of geotechnical engineering problems and opportunities to continue learning on a global scale bring out the wonder and curiosity he had as a kid, and he can't wait to get started.

Ryan Shamet Statement:

My time studying, working, and learning in the civil engineering field has been one of unexpected passion. Growing up in Central Florida. Much of my childhood was spent outdoors. Over the years, I noticed the variations of "dirt", even within my neighborhood. It was obviously apparent that certain empty lots in my neighborhood consisted of a light-colored loose "dirt" (of course now known dear to me as sandy soil), which was horrible for making bike ramps, while some areas had more reddish brown sticky dirt, which could be easily shaped and packed into the perfect bike ramp; providing my childhood friends and me hours of entertainment during the summer months. I also spent a lot of time visiting and exploring Central Florida's famous freshwater springs. These hidden oases instilled in me awe and curiosity with their relentless yield of fresh, crystal-clear water. My adolescent mind couldn't comprehend how and where the endless supply of water came from and why it chose this exact spot to burst from the ground.

As I progressed in grade school, so did my curiosity and technical mind. During my third semester of my BSCE at the University of Central Florida (UCF), my childhood interests were reignited when I took Geotechnical Engineering 1. Since then, I have continued studying and researching soil variations and geologic formations, and how engineers can effectively design

foundations, roadways, and earth-structures, to minimize the risk of soil-failure in the most economical way. Variability within the Geotechnical discipline, which can be notably present on a small project scale, is exponentially increased for a regional, or even global scale. It excites me to know that in my career as a geotechnical engineer, there is always an opportunity to learn more. Whether it be exploring design concerns in a foreign geology, or implementing new construction or subsurface investigation technique, a geotechnical engineers' scope of work is always growing.

I am currently a Ph.D. student in Civil Engineering at UCF and am researching sinkhole mechanism and engineering in karst geology. I believe research in the field of engineering in karst geology is imperative in Florida, as our state's population continues to grow each and year and additional strains are places on our aquifer system and fragile geology. What I love most about my time as a graduate student is the ability to work and rely on team-members from various disciplines and cultures. Conferences, such as this one, provide an amazing opportunity to learn from and network with fellow researchers studying a similar topic, but maybe through a different lens. After graduation, I hope to continue learning as a researcher and a student of the discipline in a national or international setting. The broad expanse of geotechnical engineering problems and opportunities to continue learning on a global scale brings out in me the wonder and curiosity I had as a kid, and I can't wait to get started.