

BEN ALONZO

PH.D. CANDIDATE | CIVIL & ENVIRONMENTAL ENGINEERING

geotechnical engineering



1. Where are you from?

I was born in Chicago, spent most of my childhood in Texas, and then came back to Chicago in my teens. I've been here ever since.

2. Where did you get your undergrad degree from and what was your major? Do you have a MS?

I got my undergraduate degree from Northern Illinois University in Geology. I now have a Masters in Geotechnical Engineering from NU.

3. What attracted you to engineering?

I love geosciences, but one thing that was missing for me was the application of that knowledge to something more tangible. Engineering addresses that issue. It allows me to take more abstract concepts and break them down to utilize them as tools to 1) better understand the science, and 2) apply those concepts to solve real-world problems.

4. What attracted you to pursue a Ph.D. in your specialty area?

After my undergraduate degree, I was working for the USGS on volcanoes and then worked for a while in the civil engineering industry. The combination of these two experiences, along with my educational background, fueled my interest in geotechnical engineering. While I enjoyed my previous work experiences, I also love teaching, so I wanted to become an expert in my field with hopes of one day working in academia.

5. How do you explain your thesis research to a non-scientist?

I have two projects, one of them focusing on natural hazards by specifically looking at landslide mechanics. I use geomechanical models, and remote sensing data to understand the triggering mechanisms of catastrophic failure and the behavior of creeping landslides that are characterized by cyclic periods of stability and acceleration. The goal of my research is to develop methods and models that will help predict where and when slope failure will occur to improve natural hazard risk management. The other is in collaboration with the Earth & Planetary Sciences department where I investigate the seismicity associated with the East African Rift zone using seismic traces from local earthquakes to model the complex geo-structures beneath the surface and to characterize earthquake hazards.

6. What attracted you to NU?

NU and its faculty obviously have a great reputation; however, what really attracted me was the sense of community and push to approach research topics from an interdisciplinary standpoint regardless of what department you work in.

7. What has been the highlight of your time at NU and CEE?

The highlight of my time here revolves around the people of NU and CEE. The relationships I've built with fellow students, faculty and staff has really made an impact on my time here and my drive to push forward in the program.

8. What has been the most challenging aspect of your graduate school experience?

Besides trying to get back into the rhythm of academia after being completely detached from the academic setting for almost 10 years before beginning this program a personal challenge has been building up my engineering expertise with very limited foundational coursework and managing the balance between research, coursework, TA'ing, and my personal life.

9. Can you tell us about your experience being mentored or mentoring others?

I've had the pleasure of being mentored by incredible senior PhD students that have gone out of their way to help me through my learning process. My advisor and other faculty have also been an immense support and have displayed incredible patience while continually pushing me to succeed and to strive forward.



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9. Can you tell us about your experience being mentored or mentoring others? (cont.)

I have also been fortunate enough to take part in a program called NU Geopaths where graduate students act as mentors and are matched with high school juniors/seniors. The goal of this program is to introduce high school students from underrepresented backgrounds to the world of STEM. As a Latino student, I never had this type of opportunity so to be a part of the program and impart my experience to be a mentor for students of similar backgrounds has been a major source of my enjoyment.

10. What are your interests or hobbies outside of your research?

During my down time I like to be outside in nature, go hiking, spend time playing with my dog, go mountain biking and sometimes go indoor rock climbing. I enjoy playing basketball and football, and hanging out with family and friends.