Megan Brown is a 4th year PhD Candidate at the University of Colorado Boulder where she studies the triggering mechanisms of injection-induced seismicity events. Atypical from other students that have been featured, Megan is more of a hydrogeologist than she is a near-surface geophysicist. Despite this, over the years Megan has developed an interest in geophysics stemming from her time as an environmental consultant where she used ground penetrating radar and other borehole geophysical methods. She is excited by the prospect of utilizing methods from the geophysics toolbox for her research and has found many near-surface methods to be useful for solving hydrogeology problems.

While other kids wanted to be firefighters or ballerinas, as far back as she can remember, Megan has wanted to be a geologist. She even wrote a report about induced seismicity when she was in the sixth grade! This passion led her to pursue a bachelor’s degree in Geological Sciences from Arizona State University which she earned in 2007. After graduating, Megan spent five years working in the environmental consulting industry at which point she decided to pursue further education at the graduate level. When she started her master’s degree, Megan was unsure of the exact area she wanted to focus on. After reading a lot of papers, Megan found a way to combine her interests in earthquakes with her strong hydrogeology background and decided to pursue studying induced earthquakes. She went on to graduate with a master’s degree from University of Missouri Columbia in 2015.

Outside of her research, Megan is very proud of the work she and Emily Fairfax have done on the accessibility and inclusion in their department at University of Colorado Boulder. Specifically, Megan and Emily have evaluated the accessibility climate through surveys of faculty, teaching assistants, and undergraduates. They used the results to create and implement training on Accessibility and Universal Design for Learning (UDL) for the new teaching assistants in the department. As a result of this training, they found that trained teaching assistants gain and retain knowledge on UDL throughout the semester as well as report more instances of accommodation requests than in previous semesters which they attribute to students being more comfortable approaching the trained teaching assistants.

Last year, Megan was one of the Outstanding Student Paper Award (OSPA) winners in the Near Surface Geophysics Section for her work entitled “Examining the role of Coulomb static stress transfer in injection-induced seismicity: a generic modeling approach.” Megan has also presented
work related to induced seismicity in 2014 and 2016. She particularly enjoys the AGU Fall Meeting because “it’s a place where you can see all of the latest developments in your particular area of research and learn about a new area of study.” Outside of presenting her work, Megan is currently the Hydrology Section Student Representative and Chair of the Hydrology Student Subcommittee.

Being in the final year of her PhD, Megan is actively pursuing the next steps in her career. She is currently applying for faculty positions and hopes to stay in academia as a professor.

For more information about induced seismicity, please contact Megan Brown.

Interested in being highlighted, or know a student who should be? Please email Matthew Sirianni for more information about the Student Spotlight. We are also seeking research highlights that showcase use of near-surface geophysics in other AGU sections and focus groups. If you are interested in writing a short, one-page highlight, please contact Chi Zhang.