

Christopher Ryan Shearer



Graduate Institution: Georgia Institute of Technology

Graduate Discipline: Civil Engineering

Hometown: Strongsville, OH

Relevant SC Research: Basic Energy Sciences

Research Interest:

My research interests involve the multi-scale investigation on the structure (i.e., chemical, physical and mechanical properties) and durability performance of structural materials, with a focus on sustainable concrete materials technology. Specifically, my current research involves characterizing and developing potential reuses for biomass and coal co-fired fly ash and treated high-carbon fly ash in applications including concrete, geopolymers and fired-bricks. My other research interests include earthquake engineering and genetics. Ultimately, I hope to advance the technology necessary to promote clean energy through economically utilizing energy by-products in novel materials

About Me:

In addition to my research activities I have served as a teaching assistant and lectured for the Materials of Construction undergraduate course at Georgia Tech. I also have mentored nine undergraduate researchers and hopefully inspired a few of them to pursue graduate research of their own. I am involved in a variety of outreach activities for K-12 students ranging from participating in science fairs to speaking at elementary schools. I am a member of many professional societies including the American Concrete Institute, the Earthquake Engineering Research Institute, the American Ceramic Society and the American Society of Civil Engineers, where I have served in

multiple leadership roles. I have interned at the Ohio Department of Transportation and worked on power plant design as a structural engineer for URS–Washington Division. During my graduate studies, I have given award-winning presentations at many international conferences and was invited to speak to the ASTM Concrete Committee about my research. Last summer, I was honored to participate in the National Science Foundation East Asia and Pacific Summer Institute (NSF EAPSI) program where I was able to research fly ash geopolymers at the University of Melbourne, Australia under Dr. John Provis. During my undergraduate studies I was involved in the Concrete Canoe Competition as an administrative engineer, mix designer and project manager. I also participated in marching band and choir as an outlet for my musical interests. As a classically trained pianist, I enjoy playing the piano any chance I can get. I am an avid movie-watcher, music-listener, reader, traveler, biker, hiker and supporter of Yellow Jackets sports. After graduation, I aspire to become a professor of Civil Engineering to integrate my passion for teaching and for materials technology research.



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