What do you do in the EED?

I started this semester as a part-time lecturer with the EED, teaching the first course in the fundamentals of engineering sequence, ENGR 1181 (I had previously taught this on the Marion campus also). This course introduces students to a couple of important computational tools engineers use (Excel and MATLAB) and also gives students experience working as a team and presenting and documenting their work. There are hands-on labs with including content from systems, environmental, materials, civil, electrical, and computer engineering fields.

What's your favorite thing about working in the EED?

I like working directly with students. My class is structured in such a way that most of my time is not spent standing in front of the class lecturing, but moving around the classroom talking to students (or small groups) one-on-one. This lets me get to know the students better and be able to tailor my message to individual students, depending on their experience and comfort level with the material that we are covering. It's rewarding to see those “aha” moments when something clicks.

What's a fun fact about yourself?

I had class this year on Halloween, so I decided to dress up: I went as “Doc” Brown from Back to the Future. (I did get a lot of questions about exactly which mad scientist I was supposed to be, though, so I guess a lab coat and fake welding goggles were not so specific).

What do you do while you’re not teaching?

My other appointment is in Chemical Engineering as a research scientist. My recent work focuses on using statistical mechanics to better understand the microscopic structure of certain ion-containing polymer systems, working with Prof. Lisa Hall. The ultimate application of this includes making safer (nonflammable) Lithium-ion batteries. I also am working as part of a
collaboration lead by Prof. Chris Orban in Physics and with Profs. Jim Fowler and Bart Snapp in Math about using virtual reality in teaching in STEM fields (https://buckeyevr.osu.edu/). The idea is that we can use Google Cardboard, which takes advantage of smartphones in most students' pockets, to provide classroom scale VR, allowing us to teach 3D phenomena in 3D (instead of writing a representation on the board in 2D).