

people to know

FIDDLING AROUND

Engineer Heather Gilmer's love of structures, accompanied by the violin, comes full circle.

HEATHER GILMER HAS LOVED structures ever since her fourth-grade science class, where she and her fellow students were tasked with building models of suspension bridges out of soda straws, thread and straight pins, as well as freeform structures from which steel washers were hung.

"Mine held up the most washers," she reminisces. "Then we were told we had to cut the straws one by one and see what our structure would support. I didn't have the words for it at the time, but what I was thinking was, 'Well, if you'd told me that redundancy was one of your design parameters, I would have designed it differently.'"

On top of this, both her mother and one of her grandfathers were engineers. That said, the path from building thread-and-straw structures to her current career in engineering was anything but direct.

"Once I got to college, I went from engineering to computer science to linguistics," she recalls. "I found out a little about civil engineering, but, not understanding how separate the different branches are, I was afraid that if I aimed for bridges, I'd get sewers and roadbeds instead. And I didn't want sewers and roadbeds; I wanted bridges! I wanted big suspension bridges, and I knew that hardly any of those were built around the world, and my odds were not good."

So, Gilmer switched her focus to computer science, then eventually linguistics, which she describes as studying the structure of language. "It's not at all like being an English major," she notes. "It's more like being a logician."

What eventually brought her back to engineering was somewhat of a "Eureka!" moment. While reading a book about a skyscraper collapse, she noticed that the engineer was featured prominently. Not only that, but she came to the realization that civil engineers don't just build bridges, but also skyscrapers. So after earning a B.A. and M.A. in linguistics—and in the midst of pursuing a Ph.D. in linguistics—Gilmer abruptly changed course and went back to civil engineering as an undergraduate major, eventually earning her B.S. in civil engineering from the University of Massachusetts at Amherst. From there, it was off to Austin and the University of Texas for a Master's Degree in the same field.

While in Austin, Gilmer continued to cultivate another of her lifelong interests: the violin, which she had played since she was three. "I don't even remember what it was ever like to hold a violin in my hands and not know what to do with it," she says.

In high school, Gilmer was in the Youth Symphony Orchestra of New York (now called the New York Youth Symphony) and got to perform at Carnegie Hall a few times. She is especially fond of traditional Irish and French music and has even taught Irish fiddle workshops at various festivals in Texas.

Upon receiving her M.S. in civil engineering from UT, Gilmer had become immersed in Austin's music scene and

"wasn't ready to leave." As there was little to no skyscraper design work in town at the time, Gilmer went to work for the Texas Department of Transportation (TxDOT), where she spent more than a decade. In her stint at TxDOT, she had the opportunity to work on the Margaret Hunt Hill Bridge, a cable-stayed bridge with a steel arch pylon (designed by Santiago Calatrava), in Dallas. "It took me years to realize that what I'd thought was a compromise from my dream of skyscrapers was really a return to my original wish to build bridges," she says.

From TxDOT, she moved on to a bridge fabricator, where she served as the director of quality, and eventually landed in Tampa and her current role as the quality assurance manager with another fabricator, Florida Structural Steel (an AISC Member), where she has been since the beginning of this year.

Since leaving Austin, Gilmer doesn't get to play the fiddle as much as she'd like to. However, if she finds herself in a city that has an Irish session while she's there, she brings her fiddle with. She also maintains a healthy, if long-distance, relationship with her old band from Austin, because, as she puts it, "Where else am I going to get to play traditional French music?" **MSC**

▼ Gilmer, with Scooby-Doo, at the North Texas Irish Festival in Dallas, where she has taught an Irish fiddle workshop.

