Alumna Snehal Shirke Helps Computer Science Students Think Like Users

After seven years at Kennesaw State University, Snehal Shirke (MS Tech Com, SP16) has moved into a new role as Senior Lecturer in Georgia Tech's School of Computing Instruction. She teaches technical communication to computer science majors, an audience whose needs match her long-standing interest in usability, user research, and human–computer interaction.

Shirke describes the role as a natural fit. She had not been actively job hunting, but when the opportunity surfaced, the combination of location and curriculum caught her attention. "They wanted someone to establish a technical communication course specifically for computer science," she explained. "That aligns directly with my interest in user research, UX, and UI development. It felt like the right match."

Snehal Shirke, a 2016 graduate of our MS program, is studying how students interact with AI-assisted learning tools as part of her Ph.D. research in human–computer interaction.

Adjusting to a New Environment

Shirke began the position this fall and is still settling into her new academic home. She immediately noticed Georgia Tech's scale and instructional structure. She teaches a 75-student course supported by seven undergraduate TAs, an instructional model she had not experienced before. "I was used to twenty-something classes at Kennesaw," she said. "Here, large classes are necessary because the enrollment numbers are so high, and they use a big TA network to support that. It is impressive to see how they manage it."

That scale required adjustments. She now coordinates TA work, mentors them through grading and student issues, and adapts assignments designed for much larger classrooms. "It is a shift toward more managerial responsibilities," she said. "I am still learning, but it is a good challenge."

Research in Human–Computer Interaction

Alongside her teaching, Shirke has begun a Ph.D. in Computer Science at Georgia State University with a research focus on human–computer interaction.

"What motivates me is that eventually I will get to do research in my interest area: user research in computer science," she said. Accessibility is central to this work. "I want to explore strategies that make technology usable for all types of users."

She is already working on a collaborative project at Georgia Tech, examining AI-assisted learning tools. The study compares how undergraduate and graduate students perform with an AI-supported assignment. "It is a small-stakes activity, but it helps us understand how different groups use emerging tools in the classroom," she explained.

A self-described early adopter, Shirke follows new technologies closely. She is especially interested in how users judge the trustworthiness and usability of rapidly developing tools. "Having a structured research program now gives me a space to pursue these questions in a more official way," she said.

Teaching Technical Communication to CS Majors

Shirke's teaching draws heavily on project-based learning and reflects trends in both industry and academic research. Her courses often involve semester-long projects in which students test their apps or prototypes with real users, an approach that helps them recognize the gap between expert and novice understanding.

"Engineers and computer scientists sometimes don't realize that other people may not understand their

code or their design choices," she said. "They don't realize they're being too technical, because they're breathing technology every day. When they test a prototype and see a user struggle to find a feature they assumed was obvious, that realization is valuable."

Student responses vary. Some embrace user-centered thinking, while others resist, probably in the class only because it's required. "But I try to show them the importance of making technology accessible to everyone," she said.

She directs students to reliable sources such as the Nielsen Norman Group and connects course ideas to practice by sharing examples from industry. "Students respond better when they see that the material connects to real practice," she said.

From Pune to Rolla to a Career in Technical Communication

Born and raised in India, Shirke attended the University of Pune (now Savitribai Phule Pune University), earning a bachelor's degree in zoology in 2005 and an MBA in human resources in 2009. While working in HR, she found herself drawn to writing employee communications and designing internal web portals, so she decided to go back to school—and halfway around the world—for a second master's degree, this time in technical communication.

Although she considered several U.S. programs, she chose Missouri S&T because it had a STEM focus and offered her funding. "S&T is an engineering school, and that appealed to me," she said. She also liked what she saw on the department's website, particularly its emphasis on usability and international technical communication.

She began her studies at S&T in August 2014. As a graduate teaching assistant, she taught one section of English 3560 Technical Writing each semester while building a strong foundation in the discipline through her own coursework. She especially valued Advanced International Technical Communication, History of Technical Communication, and Teaching Technical Communication for the perspectives they offered. Her favorite course, though, was Usability Studies, which connected directly to the user-centered design principles that continue to interest her.

Working under Dr. Kathryn Northcut's supervision, Shirke completed a thesis titled Yik Yak Posts: A Discourse Analysis. She credits Northcut, Dr. Ed Malone, and Dr. David Wright with shaping her future teaching and research. "I still use many of their strategies in my classroom," she said. "A large part of my career, I owe to them."

Looking back, she regards the program as both rigorous and supportive, with opportunities that extended beyond coursework. "The program is outstanding, and the extracurriculars, like design teams, are valuable too. I thoroughly enjoyed my two years there."

Career Growth in Wisconsin and Georgia

After graduating from S&T in May 2016, Shirke taught as a full-time Communication Instructor at Southwest Wisconsin Technical College. Her teaching responsibilities included a wide variety of courses, such as written communication, technical reporting, oral and interpersonal communication, and speech. At S&T, she had taught juniors and seniors, always in the same course. "They were already very motivated and they were really serious about their studies. They would turn in their assignments on time and things like that." In Wisconsin, she encountered a very different student population, many arriving directly from high school. The courses were more general, the students were younger, and she had to adjust quickly.

Seeking career advancement, Shirke went on the job market again, and in 2018, she accepted a Lecturer position at Kennesaw State University in the Atlanta metropolitan area, where she spent seven years and earned promotion to Senior Lecturer while teaching technical writing, productivity tools, and user assistance. "Kennesaw was a great place to grow as a lecturer," she said. "I experimented with different assignments, including some I learned at S&T, and the students responded well."

Although her new position at Georgia Tech is exciting, she will always have fond memories of Kennesaw, because her time there was foundational to her development as a teacher. Like her earlier move from S&T to the college in Wisconsin, the transition from Kennesaw to Georgia Tech has been accompanied by its own shift in classroom culture. One difference, in particular, has stood out.

A Lesson in Humility

As a top-tier school, Georgia Tech attracts high achievers. Many of Shirke's students have impressive accomplishments, such as high test scores and national awards. What stands out, she said, is how little they draw attention to their accomplishments. Their modesty has made an impression on her. "They're very humble," she said. "It keeps me humble too. Good work speaks for itself."