SMC eNewsletter's Student Corner Column (March 2026 Issue)
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In this issue of the Student Corner Column, we feature interview with a Ph.D. student who is making significant contributions to the fields of computer science and technology.

Nasim Soltani is a PhD candidate at INRS-EMT in Montréal, Quebec, Canada with a background in Computer Engineering. Her research lies at the intersection of federated learning, cybersecurity, and distributed systems, focusing on building robust and secure AI systems that can withstand adversarial conditions. Since beginning her research journey in 2015, Nasim has worked on problems ranging from network security to AI trustworthiness. She is also affiliated with the INRS-UQO Joint Research Unit on Cybersecurity in Gatineau, Quebec, Canada who actively engages with the global research community as a member of IEEE and the SMC Society through conferences, publications, and collaborative research.

1. Can you tell us about your academic journey and how you arrived at your current research topic?

My academic journey began with a bachelor's degree in computer engineering. During my undergraduate studies, I was very interested in developing strong programming skills and exploring different areas of computer science. I took several courses, including artificial intelligence and software engineering, which exposed me to many exciting ideas and applications. These experiences increased my curiosity and motivated me to keep learning more and exploring topics in greater depth. During my graduate studies, my perspective on learning evolved. Instead of only studying existing concepts, I began defining research problems and trying to solve them through systematic investigation. This process made research particularly exciting for me. Working on open problems and contributing new ideas strengthened my interest in academia and motivated me to continue this path. Now, as a PhD candidate in Telecommunication, I focus on federated learning and its vulnerabilities. I am very happy that I chose this path, as it allows me to continuously learn, explore challenging problems, and contribute to developing more secure and reliable intelligent systems.

2. What inspired you to pursue research in your chosen field? How do you see it impacting society and humanity?

I became increasingly interested in cybersecurity, particularly using AI to solve complex security challenges. As artificial intelligence transforms critical infrastructure, I realized how crucial it is to ensure these systems are not only powerful but also secure and trustworthy. AI's integration into critical applications creates new vulnerabilities, adversarial manipulation, robustness failures, and emerging attack vectors. This motivated me to focus on AI security. The field demands continuous learning as new threats constantly emerge, making the research both challenging and rewarding. By studying system weaknesses and developing robust defences, I aim to contribute to safer intelligent systems that enable responsible AI adoption and positively impact society.

3. What motivated you to join the IEEE and the SMC Society?

I was motivated to join IEEE because it brings together researchers, and practitioners who are working on advancing technology and solving real-world problems. Being part of such a global professional community provides an opportunity to stay connected with new ideas, emerging technologies, and ongoing research developments. The SMC Society particularly attracted me because its focus on intelligent systems, machine learning, and complex system design closely relates to my research interests. My work explores the intersection of AI, cybersecurity, and distributed systems, and the topics covered within the SMC

community align well with these areas. Another important motivation for joining IEEE and the SMC Society is the opportunity to engage with other researchers through conferences, workshops, and collaborative activities.

4. How has being a member impacted your academic or professional journey?

Being a member of IEEE has positively influenced my academic journey by helping me stay connected with the global research community. Through IEEE publications, conferences, and technical activities, I have been able to follow recent developments in areas related to artificial intelligence, cybersecurity, and intelligent systems. This exposure has helped me broaden my perspective and better understand emerging research directions. Another important benefit is receiving information about conferences, workshops, and scientific events. These opportunities are very motivating for me, because they encourage me to work harder, improve the quality of my research, and aim to participate in these events. Conferences are also valuable spaces to exchange ideas, present research, and build strong professional networks with other researchers and experts. Overall, being part of IEEE and the SMC Society has supported both my academic growth and my motivation to actively contribute to the research community.

5. Where do you see yourself in the next 5-10 years?

My plan is to continue in academia, starting with a postdoc, then working toward a faculty position. I am drawn to this path because I enjoy tackling problems that require both theoretical understanding and practical implementation. The kind of work where you need to prove something should work, then figure out why it doesn't in practice, then iterate until theory and reality converge. Academia provides the space for this kind of sustained problem-solving. I can work on challenges that take months or years to resolve, collaborate with people across institutions, and contribute knowledge that others can build on. I'm also looking forward to supervising students, not just sharing techniques but helping them develop their own research thinking. That cycle of discovery and learning is what makes academic research meaningful to me.

6. What advice would you give to other students considering joining IEEE or a specific society like SMC?

I would say go for it, especially if you are in a research-focused program. Being part of such communities provides access to the latest research, conferences, and technical resources, which can greatly enhance both learning and professional growth. But the real value comes from engagement. Attend webinars in your field. Connect with researchers whose papers you cite. These small actions compound over time. These experiences not only broaden your knowledge but also help you build a strong professional network, discover new research ideas, and stay motivated in your academic journey.