

Choosing Courage Over Comfort

Lessons on resilience, risk, and stepping beyond the comfort zone.

Hajar Abedi 

This article reflects on the personal and professional journey of navigating risk, resilience, and growth as an engineer. From building a home laboratory during the COVID-19 lockdown to conducting clinical research in a hospital environment and ultimately cofounding a start-up, the narrative highlights how stepping beyond one's comfort zone can lead to meaningful innovation. Key lessons include the value of resilience in uncertainty, the importance of recognizing the human impact of engineering, and the necessity of making courageous choices, even when the safe path seems more attractive. By sharing these experiences, the article aims to inspire engineers—particularly those early in their careers—to embrace risk as a catalyst for impact and to approach their work with clarity, intention, and a focus on societal benefit.

BEGINNING THE JOURNEY

When I began my Ph.D. studies at the University of Waterloo in January 2019, I could not have imagined that just a year later the world would be turned upside down by the COVID-19 pandemic. By early 2020, labs were locked down, flights were cancelled, and the world felt like it had stopped. I was far from my family, isolated, and watching my savings disappear. There were moments of deep uncertainty, when I wondered if I could keep going at all.

Instead of waiting for the university labs to reopen, I made a bold choice: I

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EDITOR'S NOTE

I first met Dr. Hajar Abedi during the 2024 IEEE Antennas and Propagation Society meeting in Florence because she was one of the Mojgan Daneshmand Grant recipients this year. She is a researcher and technology innovator specializing in radar sensing, electromagnetic systems, and artificial intelligence. She is the chief science officer and cofounder of Gold Sentinel, where she leads the development of ElephasCare, a privacy-preserving radar-based monitoring system designed to enhance the safety and well-being of older adults in long-term care and home environments.



Claire Migliaccio 

Hajar received her Ph.D. degree from the University of Waterloo, Canada. Her work integrates millimeter-wave radar technology with machine learning models for noncontact detection of human activities and gait in naturalistic environments. Her research contributions have been published in leading IEEE journals and international conferences and have resulted in several patents and technology transfers. Hajar has been the recipient of numerous distinctions, including the IEEE Antennas and Propagation Society Fellowship, the International Union of Radio Science Young Scientist Award, and the IEEE Mojgan Daneshmand Grant, in recognition of her technical excellence and leadership in the field.

Although I know about her managerial and scientific achievements, I was impressed by this young woman's maturity, her perspective on her work, her curiosity, and her open-mindedness. Reading the following contribution explaining her journey, I can better understand what impressed me at the time. I hope you enjoy discovering this inspiring story as much as I did.

brought all radar systems and lab equipment into our tiny apartment. I could have said no. I could have chosen to keep our home neat and tidy like a normal living space. I could have made the easy excuse that the labs were closed and there was nothing I could do, and no one would have blamed me. But at that moment, I had something more important to do. Soon, every corner of our small apartment was filled with radar sensors, antennas, tripods, computers,

and cables. It was everything but a place for living. Still, I kept going. We ran measurements day and night, capturing data on ourselves (me and my husband) as participants. Even some experiments on the effects of lens antennas on radar performance were done in our living room.

That decision—to keep moving forward no matter what—changed everything. From that self-collected data, we wrote a paper that was later published in *IEEE Internet of Things Journal* [1], and

it was later featured by the news division of the Canadian Broadcasting Corporation [3]. That work became the scientific foundation of what is today ElephasCare [2]. It was during this challenging period that I learned my first real lesson as an engineer and as a person: resilience. With no clear path forward, I had to build one. And that persistence prepared me to face the opportunities—and the risks—that would come later. During my Ph.D. studies, I was offered the chance to spend about six months at the McGill University Health Center in Montréal to contribute to a national study [4]. It was a prestigious opportunity but also disruptive. It meant leaving the familiarity of my lab, my friends, and the steady rhythm of my Ph.D. routine. I had just come out of surgery and was still regaining my strength. It would have been easy, and understandable, to say no. But I chose to go.

That decision changed me. Working in a hospital environment, I saw firsthand the human side of engineering problems: patients waiting for diagnoses, clinicians struggling with limited tools, and families hoping for better care. It made me realize that my work with radar sensing and artificial intelligence was not just about algorithms and devices. It was about lives. That six-month period broadened my perspective, exposed me to interdisciplinary collaboration, and showed me how engineering research could move beyond the lab to have a direct societal impact. A few years later, I faced another turning point. My research had matured into technologies that showed real promise for health-care monitoring. At that stage, the “safe” and expected choice would have been to simply complete my Ph.D. degree (which I defended in 2023) and look for a stable job. Instead, I chose the riskier route: I became a cofounder of a company to bring this research into the real world. Cofounding a start-up was intimidating. It meant stepping into roles I had never imagined for myself: business strategy, fundraising, pitching to stakeholders, and working closely with caregivers and facility administrators. It also meant living with uncertainty—the very opposite of the structured milestones of graduate school. Would we run out of funding? Would our technology work in real-world

environments? Would we survive as a company? I had no clear answers.

LIFE LESSONS FROM ENTREPRENEURSHIP

Yet, it was within this uncertainty that I learned some of the most important lessons of my life. Being an entrepreneur taught me patience. I discovered that a day that begins with a setback can often end with a breakthrough if you stay resilient. I also learned how to live with clarity and focus—to strip away unnecessary expenses and concentrate only on what truly matters. The way I eat, the way I travel, even the way I think about clothing and possessions has changed. Entrepreneurship taught me not just how to build technology but also how to live more intentionally. Even as I write this, I still don't know what will happen to our start-up or how we will survive. We are facing countless challenges, and the path ahead is full of unknowns. But one thing I deeply believe is that we must keep going—keep searching for solutions to every single challenge and keep moving forward without becoming discouraged or disappointed. Perhaps the greatest lesson was realizing that if you want to create real impact, you sometimes have to let go of temporary pleasures. Building something meaningful demands sacrifice, focus, and a willingness to delay gratification. In exchange, you gain the possibility of creating something that outlasts you—something that touches people's lives.

CLOSING THOUGHTS

Looking back, these decisions—building a home lab during the pandemic, going to McGill, becoming a cofounder, and embracing the lessons of entrepreneurship—were inflection points in my journey. They taught me that growth often happens when we embrace risk and that opportunities rarely come neatly packaged or at convenient times. We are often encouraged to seek stability and avoid risks. Yet my experience has shown me that taking risks is not about recklessness. It is about believing in your vision, trusting your abilities, and being willing to step into spaces where others may hesitate. Along the way, we will be offered many choices. Not every opportunity is the right

one, and not every “yes” moves us closer to our purpose. One of the most valuable skills we have to learn is knowing what to say yes to—and what to say no to. To do that, we must set clear priorities for ourselves and ask: What truly matters to me in my life? When our priorities are clear, our decisions become lighter, our focus sharper, and our impact deeper. The lessons I carry with me are simple:

- Say yes to opportunities, even when they require sacrifice or discomfort.
- See beyond the safe path—your research, your career, and your life can take directions you never imagined.
- Remember the human impact. Engineering is at its best when it serves people directly.
- Live with intention—impact often requires patience, sacrifice, and the courage to ignore short-term comfort for long-term purpose.

As I continue my journey, I am grateful for the moments where I chose courage over comfort. Those choices have shaped my career, expanded my horizons, and allowed me to contribute to meaningful innovations. My hope is that more of us engineers will see ourselves not only as problem solvers but as leaders and risk-takers who are ready to seize opportunities that can change both our own lives and the lives of others.

AUTHOR INFORMATION

Hajar Abedi (habedifi@uwaterloo.ca) is with Gold Sentintel, Waterloo, ON N2J 2X3, Canada. She is a Member of IEEE.

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