

Sarbajit Rakshit: In Kolkata, Inventing to Improve Lives

By Matt Hunter

Sarbajit Rakshit's path to becoming an inventor started with a universal desire: to impress his father, a mathematics teacher in Cooch Behar, West Bengal, India.

While working as a programmer for IBM in Kolkata, Rakshit filed his first patent application with the United States Patent and Trademark Office—for a “[graphic query suggestion apparatus](#),” which would display search engine results in a more helpful, easily digestible way, a bit like a Venn diagram.

Seven years and 500 patents later, Rakshit is now an [IBM Master Inventor](#) and one of the company's most prolific patent holders. While his father, Smarajit Kumar Rakshit, passed away before his first patent was awarded, that initial motivation kick-started a career that shows no signs of slowing.



Sarbajit Rakshit, an IBM cybersecurity architect and Master Inventor.

Rakshit's main job at IBM is as a cybersecurity architect, working to remediate software vulnerabilities in various applications. Right now, much of that work is focused on the business intelligence and security fields,

mostly in support of one of the world's largest shipping companies.

His ultimate professional goal, he says, is to improve people's lives. To that end, he has used his free time to obtain patents in diverse fields including augmented reality, business intelligence, cognitive computing, automation and drones—a reflection of an inquisitive and active mind.

Technology to Help the Disabled

Rakshit, who holds a degree in mechanical engineering from the Indian Institute of Engineering, Science and Technology, joined IBM in 2007 and works from the company's Kolkata office. He was awarded 163 U.S. patents in 2019, the highest ever awarded to a citizen of India in a single year.

He cites his [drone-to-drone package transfers](#) and the ability to send a digital file to a recipient [with one's eyes](#) as two of his favorites. Others that were recently awarded involve [wireless charging inside clothing](#), [replenishing energy](#) in autonomous vehicles [and automated parking space selection](#).

He's focusing now on technology to help the disabled, a field of research that inspired the eye-to-eye file transfer invention. "Transferring information using computing devices by physically disabled people is challenging," he says. "We need a system by which a user can transfer information to surrounding users without a handheld device."

For inspiration, Rakshit looks for ideas in scientific publications and keeps the latest gadgets—including wearables, smartwatches, Alexa and VR headsets—around the house in Kolkata that he shares with his family. His wife, Sharmila Rakshit Datta, has a master's degree in zoology. His sons Snigdhajyoti, 14, and Sanjog, 8, sometimes offer their own ideas for inventions.



IBM

A Culture of Innovation and Teamwork

IBM's longstanding culture of innovation and teamwork creates an environment that encourages his success, Rakshit says. Subject matter experts bounce ideas off their peers, internal critique strengthens new ideas, and seasoned professionals make a point to welcome and guide newcomers. Rakshit says he enjoys playing devil's advocate with his IBM colleagues, making sure their patentable ideas can withstand scrutiny.

"IBM is always focused on inventing new technologies," he says. "Everybody around my ecosystem is discussing inventions, and there is support from management, peers."

Having an inventive mindset is key, says Rakshit, whose own inquisitive mind has turned to yet another topic. In a [recent LinkedIn post](#), he mused about the possibility of using soundwaves to control mosquito populations. It may be "a wild thought," he acknowledged in the post.

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