

An Interview with Dr. Charu Aggarwal, Winner of ACM SIGKDD 2022 Service Award

ABSTRACT

In recognition of outstanding professional services and contributions to the field of knowledge discovery and data mining, Charu Aggarwal, Ph.D. is the recipient of the 2022 ACM SIGKDD Service Award. Conferred annually on an individual or group, Dr. Aggarwal was honored for his years of service and many contributions that span publishing, programming, sponsorship and more in support of SIGKDD. Dr. Aggarwal is Distinguished Research Staff Member at IBM T. J. Watson Research Center and was the recipient of the 2019 SIGKDD Innovation Award. He sat down with SIGKDD Explorations to discuss how he first became involved with the KDD conference, the evolution of his volunteerism, the focus of his work at IBM, and his advice to those early in their careers.

TO START, ALLOW US TO OFFER OUR SINCERE CONGRATULATIONS ON YOUR SELECTION AS THE RECIPIENT OF THE PRESTIGIOUS ACM SIGKDD SERVICE AWARD IN RECOGNITION OF YOUR MANY CONTRIBUTIONS OVER THE YEARS. TELL US ABOUT YOURSELF, DR. AGGARWAL. WHERE ARE YOU FROM, WHERE DID YOU DO YOUR STUDIES, AND HOW DID YOU BEGIN YOUR PROFESSIONAL CAREER?

Thank you for the kind words. I grew up in India and pursued my undergraduate degree in computer science at the India Institute of Technology, Kanpur. I then completed my Ph.D. in operations research, which is a brand of applied mathematics, at MIT. Having focused my studies and research on aspects of probability, statistics and mathematical optimization, my graduate work was very relevant to machine learning. I was fortunate enough to intern with IBM in the summer of 1995 and enjoyed the machine learning work I did there so much that I shifted my field of interest and study. I had the opportunity to join the company full-time when I completed my Ph.D.

TELL US ABOUT YOUR WORK AS DISTINGUISHED RESEARCH STAFF MEMBER AT THE IBM T.J. WATSON RESEARCH CENTER

Since joining IBM more than 25 years ago, my primary role has been to do research that benefits the company. While initially focused on machine learning, my interests – and therefore my research – have subsequently broadened to include artificial intelligence, privacy-preserving data mining, data streams, and more recently neural networks. I've also been privileged to publish a number of graduate student textbooks covering all aspects of machine learning.

HOW HAS YOUR SERVICE TO SIGKDD INTERSECTED WITH OR BEEN VALUABLE TO YOUR WORK AT IBM?

I'm fortunate to work for a company that values community service and encourages researchers to be actively involved as good corporate citizens. IBM recognizes that those of us who publish a high volume of papers are reliant on the many people involved in the peer review process. Accordingly, it's incumbent on each of us to look for ways to give back, and volunteer service roles are a way to do this. My work with SIGKDD allows me to support the research of my peers, ensure I remain well aware of what is happening in my field, whether from the academic or industry perspective, and also helps enhance visibility for IBM's leadership in R&D. In a nutshell, my active involvement with SIGKDD goes hand in hand with my work at IBM.

HOW LONG HAVE YOU BEEN INVOLVED WITH SIGKDD AND IN WHAT ROLES HAVE YOU SERVED?

I first became involved in the late 1990s when I volunteered on the publishing side – this was around the time that ACM took over KDD. In 2002, I served as the sponsorship chair for the conference in Edmonton, and since then I've enjoyed working on many program committees over the years. I was

program chair for the 2016 conference in San Francisco and have also had the pleasure of providing volunteer support and leadership for many other ACM conferences, with roles spanning program chair, vice chair, general conference chair, and more. In addition to supporting conference planning and execution, I have also served in editorial roles for nearly every journal in data mining, including as editor in chief of this publication (SIGKDD Explorations) and, since 2019, as co-editor in chief of [ACM Books](#).

WHAT ADVICE WOULD YOU SHARE WITH PROFESSIONALS NEW TO DATA SCIENCE AND MACHINE LEARNING WITH REGARD TO INVOLVMENT WITH KDD OR OTHER INDUSTRY ORGANIZATIONS?

All academic conferences to a large extent depend on volunteer work. For example, well over 1,000 papers are submitted annually for KDD, requiring an exceptionally large pool of volunteers to review and

evaluate, so there is no shortage of service opportunities. I advise those starting their careers to get involved early by volunteering to serve as a member of program committees. This is not only an opportunity to give back, but also will help ensure visibility to what's happening in the field, which will be beneficial both academically and professionally. Over time, as your contributions are recognized, you're likely to be invited to take on increasingly senior roles, expanding your experience and expertise.

WHAT DOES YOUR SELECTION AS THE RECIPIENT OF THE SIGKDD 2022 SERVICE AWARD MEAN TO YOU?

Of course, it gives me great joy to receive this prestigious award. It's an honor to be recognized. I view this, as well as my earlier recognition for innovation, as validation of what I've done – both over the course of my career at IBM and in service to the field of data mining and knowledge discovery. I am extremely grateful to ACM.