

CAREER CHOICE

Number Whisperers

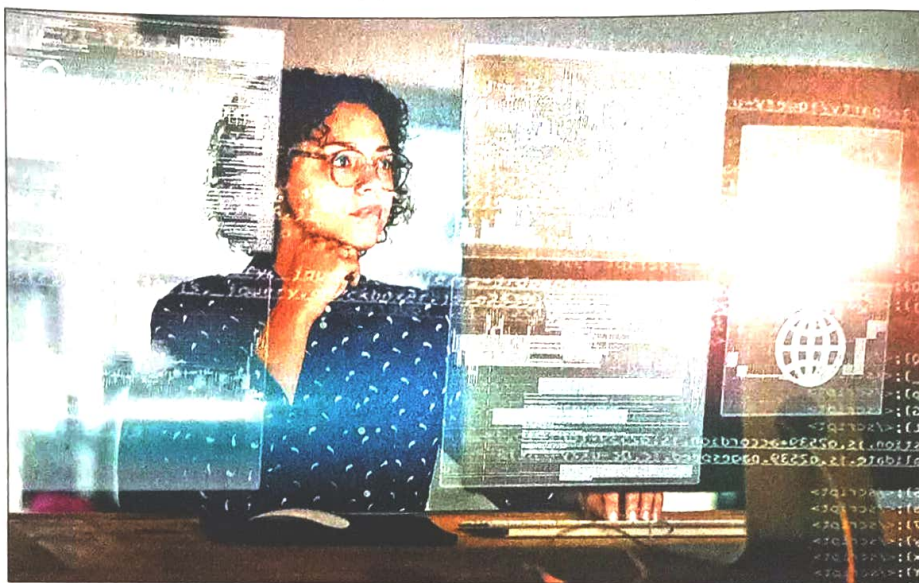
Ishani Ray on statistics graduates and their many prospects

When Arnab Mukherjee graduated from Calcutta's Presidency College with a degree in statistics in 1997, a career in the media and entertainment industry was not the obvious next destination. Mukherjee had initially been interested in mathematics and computer science, but chose statistics as it necessitated an application of mathematics. "I was always interested in the practical application of statistics but back then, significantly more emphasis was given to theory," he says.

Instead of pursuing a "conventional" career in statistics, he went on to spend seven years in advertising, moving on to television and building a career across content, marketing, research and international operations, from Star to Zee. He is now vice-president, Hindi Movies Cluster—Content at Shemaroo Entertainment, where he works on content acquisition, utilisation, monetisation and performance. "You can say that my journey was very unconventional for its time," he admits.

But over the last 20 years, the times have also changed. Spandan Bose, AI engineer and data scientist at EXL—a global data analytics and digital operations management company—says, "The essence of statistics has sort of remained constant. However, its end application has gradually changed."

From being a traditionally academic, pen-and-paper mathematical science, it has now morphed into this highly tech-driven, computationally heavy backbone for artificial intelligence



Nandita Bhattacharjee, a data scientist at Fortune 500 company Accenture, has done her master's in statistics.

She says, "Statistics can be applied to every domain. People are studying biostatistics, linking astronomical research with statistical tools and measurements to understand the data. Ultimately, you have data everywhere and whenever you have data, you can use statistical tools and techniques to generate insights from the data and understand how the process works."

For Bose of EXL, this has meant a change in how visibly statistics features in his work. As data science moves towards AI engineering, he finds statistics transitioning from an active role to a passive one. The principles and their understanding remain embedded in the tools and models being used.

Data science may bring together programming, machine learning and domain expertise, while statistics continues to provide much of the framework for understanding uncertainty, error, relationships and whether a pattern in data is meaningful.

Acharya says, "Statistics is now a mindset. Rather than being the end-career goal, we are thinking about how you can actually apply it to other things. So I would say to a student of statistics, you should explore how exactly you want to use your training. Combine it with your passions, have fun with it."

And for students pursuing the subject today, that flexibility is part of the growing attraction.

Ishani Ray is a qualitative market researcher

(AI), machine learning (ML) and corporate data science.

Many universities across the world now offer programmes that are at the intersection of statistics and other disciplines—economics, finance, healthcare, pharmaceuticals, technology, research, media, public policy and social impact.

The University of Oxford in the UK, for instance, launched a Statistical Genetics Initiative in 2020 to help accelerate health discoveries by applying advanced statistical and mathematical models to extensive genomic datasets. The University of Edinburgh, UK, offers an MSc in speech and language processing combining linguistics with ML, NLP (natural language processing) and AI,

computer science, engineering and quantitative data modelling. And the University of Manchester, UK, is all set to launch an MSc in financial crime and compliance in digital societies in September 2026. Closer home, NUS Singapore started an MSc programme in data science for sustainability in early 2024.

Aurodeep Nandi, economist and executive director at Nomura—a Japanese investment bank and brokerage group—says, "Statistics is a fancy way of saying data. It is after all the study of data. While the statistical principles remain broadly similar, what changes is the kind of data being analysed and the questions being asked around it."

Hritvi Acharya, who has recently completed a master's in economics and society from the

London School of Economics in the UK, works in research and insights in the philanthropy space. She talks about how researchers often have to estimate the scale of an area of philanthropy for which comprehensive datasets may not exist, identify trends over time or even combine different sources of information to understand patterns in sectors.

She says, "Numbers should not and cannot exist in silos. Yes, they establish the scale of an issue, but qualitative research can help explain the experiences behind those numbers. In my sector of social impact, both the qualitative and the quantitative can be important when communicating with funders and making a case for investment."

And the statistician is the numbers whisperer.