

## Are you a quant? The job market is looking for you As more of the economy falls into the realm of numbers, maths jobs are beginning to pay

ISHAN SRIVASTAVA TIMES NEWS NETWORK

One look at the logo of Mu Sigma, one of the biggest analytics firms in India, and the message is clear — “Do The Math”, it says.

With new trends in data mining and analysis, search, IT and financial maths modelling gaining prominence, job opportunities for maths graduates are slowly but steadily rising. “Maths skills are going to be critical for a variety of industries — insurance, credit cards, risk analysis, marketing analytics, revenue management, retail — just to name a few,” says Dhiraj Rajaram, CEO of Bangalore-based Mu Sigma. “In fact, my dream recruit would ideally be a mathematics plus computer science graduate.”

The numbers are still small and academics is still the dominant option for promising students, but it is certain that candidates coming out of reputed mathematics programmes are going to be in high demand in coming years.

“One really strong trend is the rise of analytics,” says Ashok Reddy, head of Teamlease, a leading staffing firm in India. “Analytics as a domain cuts across industry verticals and is growing fast globally.” Firms ranging from big technology companies like Google and Microsoft to retail giants like Amazon and eBay employ big analytics divisions to help them make sense of the immense amount of data passing through their portals and services. There are also a number of analytics service providers who assist other firms worldwide. They look for skills on the applied side like econometrics, artificial intelligence, statistics and ability to work with large amounts of data.

“There’s no better time to do maths than now. This is the golden age of analytics,” said Atul Jalan, Founder and CEO of Manthan, a fast-growing retail analytics firm based in Bangalore ranked as one of the 50 fastest growing technology companies in India by the Deloitte Technology Fast 50 India 2011 Program. “I have a core team of 56 mathematicians, including many PhDs, which I consider as my company’s core intellectual property.” In many of these analytics firms, the salaries for their core analytics team are superior to those of employees in other divisions.

Technology giants like Google, IBM and Microsoft are known to recruit mathematical specialists and theoretical computer science (which primarily involves mathematics) graduates. To cite an example, search (in its various avatars) is a big trend which involves sophisticated algorithms behind the scenes. Though numbers in India currently are not comparable to what such companies employ in the US, more and more technology companies are setting up their core R&D centres in India and seeking out skilled mathematicians.

Large Information Technology (IT) companies like TCS, Infosys and Cognizant, one of the largest employers in the country, also employ people with strong mathematical backgrounds in a variety of suitable positions. “We recruit, apart from engineers, a number of maths and science graduates and post-graduates. They are deployed on projects across applications outsourcing, IT infrastructure

services, and knowledge process outsourcing (KPO). The knowledge process areas include analytics, statistical modelling, operations research and other related areas. They get exposure to multiple verticals that we serve,” says Rajagopal Sriram, VP (HR) at Cognizant.

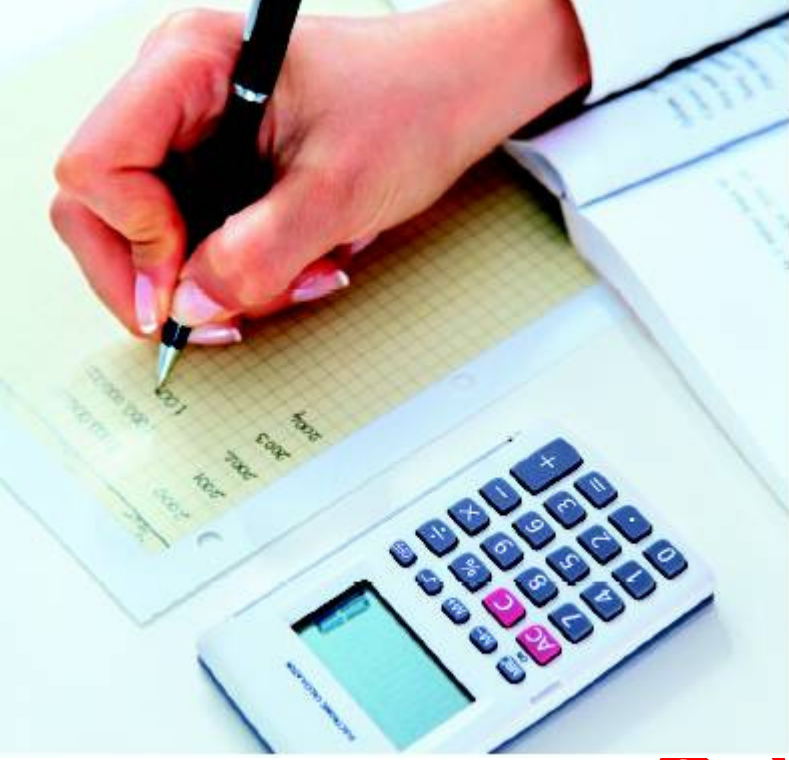
“KPOs are growing really fast and they are looking for maths graduates,” says Reddy. There are a number of independent KPOs like Genpact, Pangea3 and Irevna as well as KPOs attached to bigger firms like Infosys and TCS.

The financial sector, always heavily dependent on number skills, is now looking for a much higher level of mathematical skills due to the changing nature and increasing sophistication of financial products today. The demand for ‘quants’, as they are known in the industry, is always there. “They also need a large number of specialists at the backend to support the increasingly complex financial products. Statistical modelling and financial domain knowledge can be particularly useful,” said Madan Padaki, CEO of MeritTrac, India’s largest testing and assessment company. “But yes, they also look for a lot of other skills.”

This search for ‘something more’ echoes everywhere in the industry. “The critical thing to realise is that industry is a lot more interested if you bring mathematics plus something to the table. They are not just looking for number crunchers,” says Reddy. “Companies in the US hire many more maths graduates than companies here because their education is more well-rounded. The number of electives offered there gives students the ability to study completely different subjects at the same time. In India, our learning is still largely book-ish.” Excellent soft skills and domain knowledge of the industry you want to enter rank as top add-ons to a mathematical background.

Jalan of Manthan feels that Indian maths graduates don’t have much exposure to other disciplines which works against them in spite of good number skills. “It becomes harder for them to contextualise a business problem,” he says.

“There is enough demand for maths skills in the industry. But there is a shortage of people with the requisite abilities. Mathematics courses in Indian universities have at some level failed to attract the right minds,” says Rajaram of Mu Sigma which recruits mainly engineers at this point because of the applied maths background. They are, however, keenly looking at reputed MSc programmes in the country for recruitment now. “It’s not going to be pure maths but applied maths for industry. Maths plus something — computer science or behavioral sciences for instance.” He believes mathematics should not be seen in isolation. “Mathematics allows us to be better and more confident decision makers and the future belongs to people like that,” he says.



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