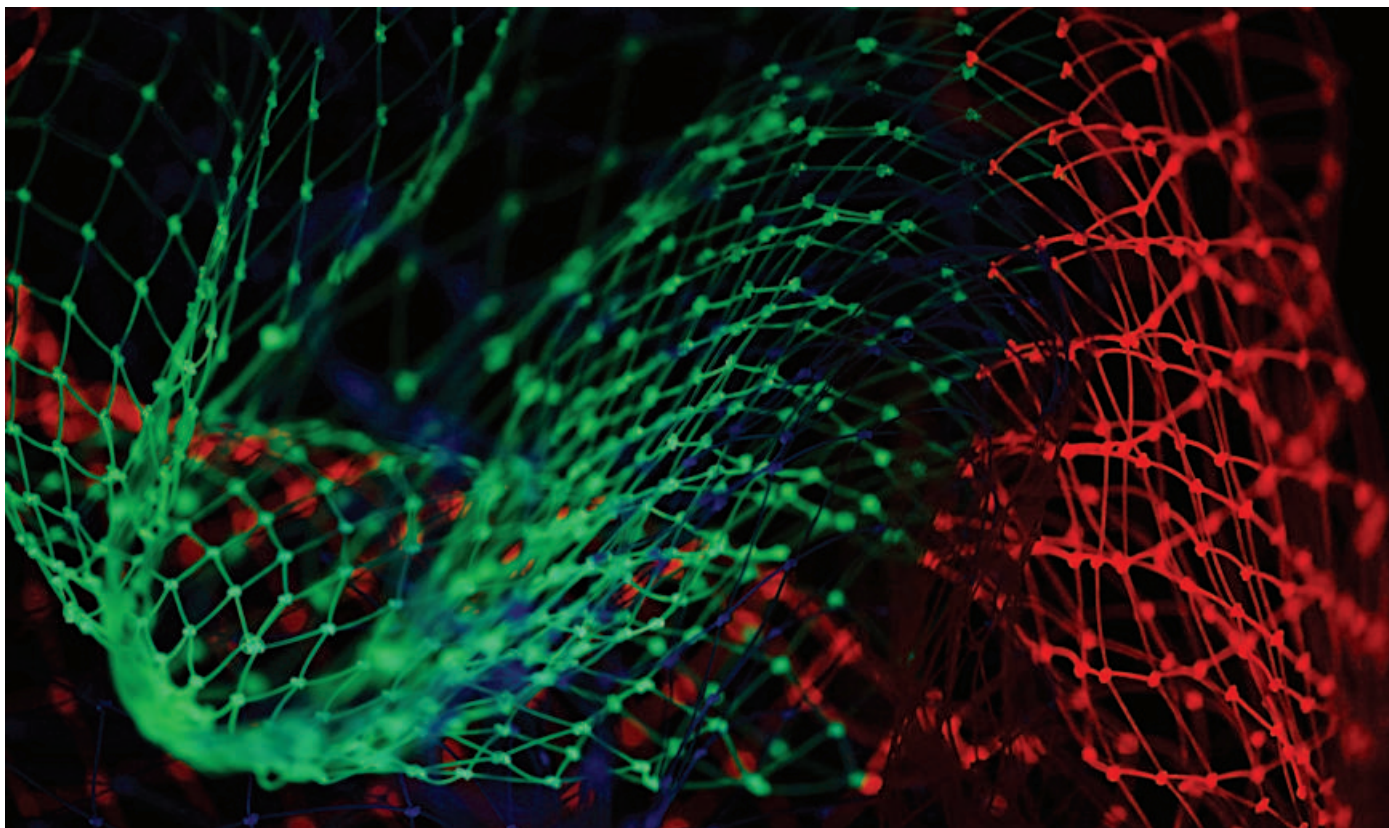# Inside the country's first Data Science degree

HASAN MAHMUD ABDULLAH

Data Science—how many times have we heard of this term in the last few years? Certainly enough to know that it is having its moment right now, with no signs of slowing down anytime soon. With the advent of the artificial generation of anything from creative audiovisual work to graduate-level thesis work, the potential of the operations enabled by AI is currently on full display. The backbone of AI and many of its sibling technologies is Data Science, a world filled with statistics, data mining, modelling and of course, the titular element of data itself.

Data science is on its way to getting inducted into the Bangladeshi undergraduate academia, courtesy of United International University. The 138-credit honours program is set to launch in full swing in the upcoming Fall session. For aspiring enthusiasts who wanted to tailor their career towards the field but had no outlet for doing so other than online courses, this is almost a godsend. But the obvious question remains, why would someone want to go into the field of Data Science when there's the ever-popular Computer Science always available? What's the point of Data Science anyway? Read on to find out about what a degree in Data Science entails, and what UIU's new program consists of.

What is Data Science?
The Data Science umbrella has expanded large enough to cover almost every single field that we can think of. Who would not want to improve their business's performance and meet the customers' needs better? Which society would

decline better medical care, economic flourishment and advancement in technology that makes life easier? We, as humans, naturally seek the path with the least resistance, to make our tasks more efficient and less error-prone.

That is the exact goal of data science as well: to collect data about certain recurring phenomena or events, unearth the pattern, and optimise our decision-making to achieve an outcome as close as possible to the ideal scenario. This is achieved through the use of a dedicated subset of software, algorithms and computer science finesse. A lot of these tasks often require a lot of computational power and high-end hardware, unlike some other computer science pathways.

However, while the world of terminology has made its fair share of progress, Data Science degrees were seldom offered by universities in popular destinations, such as the US and Canada, let alone Bangladesh, at least on the undergrad level. Now, you can choose to specialise in Data Science in the final

year of a Computer Science Degree, but considering the complexity of the field, that leaves out a lot to learn and master. The general narrative has been to pursue a Master's degree in Data Science or a related field, but for many, a Master's simply isn't an option for a variety of reasons. That is the exact gap that UIU is capitalising on with their much-anticipated program.

UIU's Data Science program
While talking to the program coordinator Professor Swakkhar Shatabda, it was revealed that the program excludes the conventional engineering aspect seen in most IT degrees offered in Southeast Asia. Students often find these mandatory engineering courses in computer science degrees troublesome, as they occupy time that could have otherwise been spent mastering a skill related to their desired job. This, however, will be a program strictly concentrated on data science, and for existing students of computer science, some overlapping credits will be waived.

UIU has already made preparations for dedicated labs with workstations equipped with high-configuration GPUs solely for data science operations. But what edge does one get with this degree as opposed to computer science, and what about securing a job? Professor Shatabda explained, "A data scientist can shine in situations where a software developer might be obsolete. With the rise in data collection and optimisation, both national and international firms need data scientists. For the purposes of higher studies or jobs related to AI, a data scientist degree holder will undoubtedly have an edge."

There seems to be some truth to this, as – due to the advent of generative models like ChatGPT – intermediate-level tasks like building a website or implementing a niche-specific chatbot can be accomplished in minutes if not seconds!

Anticipating the upcoming tectonic shift towards data science in the industry, UIU's new program promises to leave no stone unturned, and venture into anything from advanced statistics to deep learning. The course curriculum along with the finalised program details is set to be released within a few weeks on UIU's website.