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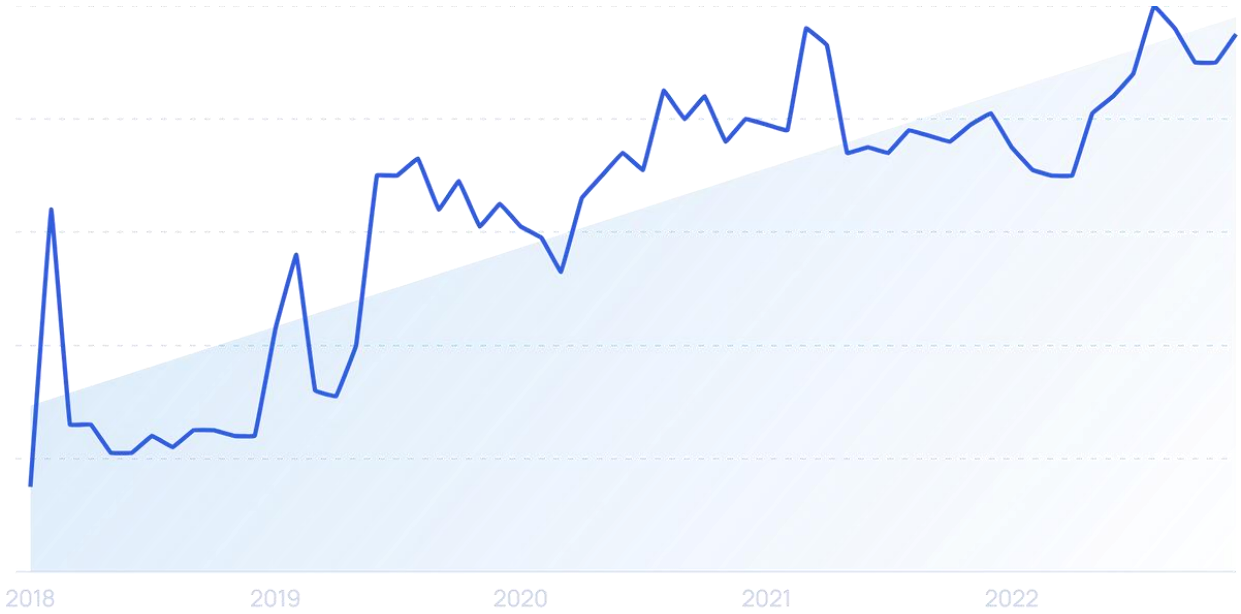
Article Writing

Topic:Growth in Data Science

Problem Statement: How to do work with big data. With the growth of population and businesses, it is of importance to find a way to deal with big data.

The field of data science has been growing in prominence for decades, as technological advancements have changed our present and offered glimpses of what's to come in the future. For those working in the field of big data – or preparing to enter it – it's important to understand the many arenas in which data science is evolving.

Indeed, based on the exponential rate at which technology is currently advancing, each year is likely to bring even more change than the previous. 2023 is likely to be no different, with several pieces of significant data.



Data Science Trends 2023

If the 21st century has shown us anything, it's that big data is only going to continue to get… well, bigger. In fact, even the name "big data" makes reference to the ever-expanding nature of information technology that allows for more and more valuable data to be captured and interpreted. Over the last thirty years especially, we've witnessed the way that these insights can transform how entire industries operate, from enhancing

marketing research and development to identifying areas for improvement in a company's production model.

But if big data has been trending for so long already, what developments is it likely to undergo in the year to come? Experts have identified a few of the following as key concerns for big data professionals in 2023:

- **Advancing tools.** Developments in A.I. and machine learning are certain to continue to make leaps in the coming year, which in turn will greatly impact the instruments data scientists have at their disposal to perform their research and analysis. This has already significantly impacted most branches of data science, all of which employ machine learning tools to function. In part, this is because of the next factor on the list…
- **Higher volumes of data.** As a direct result of the advances in A.I. and M.L. listed above, businesses are receiving a significantly larger amount of data of all sorts. Some of this expands upon previously existing datasets while other advances have brought in new forms of data altogether. In both cases, adaptations are required to allow businesses to make use of this data as well as finding safe and affordable ways to store it. As you will see, this will be critical in businesses across industries.
- **Security threats.** For better or worse, these are a perennial trend in the world of data science, with new forms of cyber attack emerging constantly. For those working in the field of cyber security, this means strategic planning and rigorous research to identify data breaches as well as preventing new ones. For everyone else working in big data, it means that vigilance is always imperative, as certain types of cyber attacks like phishing and other forms of data related fraud involve deceptive tactics that could target them.

Data Analytics

Analytics is one of the key fields of data science likely to undergo major transformations in the year ahead. Below are a few of the new data analytics trends to look out for.

Real-Time Analytics

One of the top rising data trends of 2023 is **real-time analytics.** Data capturing tools have improved in speed and scope, meaning we have access to an even greater wealth of real-time information that can illuminate our understanding of all sorts of processes. Companies are only just at the beginning of learning how these data sets can be used to guide important business decisions. If you are a data analyst or work in a related field, it will be of great use to follow any news and updates about real-time analytics that arise over the course of this year.

Mobile Analytics

Though it might seem like it couldn't possibly continue to grow, the presence of mobile devices is ever-expanding in communities all over the globe. This means that there is significantly more mobile data to be captured. For certain industries, mobile analytics are the core of their strategy, providing the most revealing and useful information to guide marketing and advertising tactics. This includes registering user engagement, customer satisfaction, monitoring in-app traffic, and identifying security threats.

Artificial Intelligence

Recent years have made clear that artificial intelligence has made monumental leaps that are likely to change not only the way we do business but the way we live. Outside of data science, this has already risen to popular consciousness: A.I. programs that augment or generate images and texts have already begun to trend even among those who don't know much about information technology.

Below are a few of the ways that artificial intelligence is likely to continue to trend in 2023.

Augmented Analytics

Within the field of big data, one of the main ways artificial intelligence is being employed is to help collect the ever-increasing amounts of data being captured and stored by new devices. This is in step with the global population's increased dependence on technology to go about their everyday lives.

In order to keep up with the huge amounts of information that are continuously coming in, machine learning and AI tools are improving their processing functions to expedite this process, preparing and meaningfully analyzing a tremendous amount of new data. This is known as **Augmented Analytics,** and it can help businesses vastly.

Augmented analytics also fits into the category of Business Intelligence. The field is expected to grow at a breathtaking speed in the years to come.

Deep Learning

When people think of A.I., what they imagine is most comparable to deep learning, the branch of artificial intelligence devoted to training computers to behave like humans. These respond to neural network architectures and large sets of data that so far have been shown to be demonstrably effective. Indeed, in 2023 data scientists and casual observers alike are

likely to take note of the increasing ability of computers to mirror human interactions.

For businesses, deep learning can be used to anticipate human behaviors, which in turn can impact areas including marketing and overall business strategies. As this technology grows more sophisticated, it will only continue to transform our approach to customer service and impact how businesses understand their customers' needs.

References

https://www.discoverdatascience.org