



Five Data Skills That Modern IT Head Should Know

A modern IT leader should have all the necessary soft skills required to be a board member and also a few specific skills that are an absolute must

By Ram Narasimhan

As information technology continues to play a pivotal role in shaping both the present and the future, the role of the IT head has become more influential than ever. More than ever now there is a requirement for technology to be aligned to all the various aspects of a

company - including overall business goals, marketing, human resources, finances, etc - and it's the job of the IT leader to ensure that nothing is lost in the translation from deep tech expertise to real-world application.

A modern IT leader should have all the necessary soft skills required to be a board member - this goes

without saying. But when it comes to data, there are a few specific skills that are an absolute must as well. The IT head will have to be a visionary when it comes to understanding technology through its implementation on any given day and see how it plays out a decade into the future. Thus, they need a deep understanding

of the present-day tech space. The important skills here include:

1 Keeping up to date with Neural Network Innovations

It is impossible to overstate the importance of Neural Networks. They have been around for decades now and yet minor improvements in implementation can result in a sea change across various industries. The best example of this is MIT's "Liquid Network", which can facilitate flexible decisions through separate data streams, as opposed to having a fixed decision that is typical of all neural networks. Thus, a generation of more adaptable and resilient neural networks is already in the offing, and an aspiring IT head needs to be on top of these innovations to ensure that any developing technology can be leveraged in the right way for their company.

2 Understanding the AI ecosystem

For any IT leader, this needs to be very high up on the list of priorities, so that they can guide their organization in the right manner. For example, if their company is in a premature phase, then their role will be to optimize their tech efforts to identify what can be concretely achieved. While in the case of a semi-mature AI ecosystem, their role will be to guide the company towards discovering hyper-parameters and straining the systems. Finally, if the company is at complete maturity, then the IT head can help select specific systems to focus on to address certain challenges. Or rather, they can also look at which challenges to prioritize and in which order to solve them.

3 Building scalable ML applications

Scale is an important point of contention among all companies today, regardless of their initial starting size. To be an effective IT head, it is of utmost importance that they know how to tackle problems

This is a key part of the puzzle since there is a chance that a lot of the operational machinery set up around APIs can be at risk if this works out phenomenally - and organizations will then have to tackle this by adapting at a quick speed

and solve them at scale. To be able to do this, they would require knowledge of choosing the right framework or language, resource monitoring as well as optimal utilization, and deploying machine learning and learning through real-world use cases. In addition to this, they would also need to be familiar with the intricacies of the input pipeline, data collection, model training, as well as other optimizations.

4 Deploying data science applications on Multi-cloud

As data requirements for mid and

large-scale companies change with time, there is already a push towards multi-cloud data storage as well as for the adoption of Hybrid IT strategies. An ideal IT leader should be able to understand how to leverage business intelligence across multiple platforms through various data science applications. In addition to this, there also needs to be a focus on making this data accessible for the right stakeholders and other business functions, as the case might be. Ultimately, this kind of holistic and interconnected thinking will be a part of the regular visionary thinking that the IT head will have to embody.

5 Role of data science APIs in the marketplace

APIs in the marketplace a vital role. They are critical in understanding, not just the larger SaaS marketplace within which most companies today compete, but also to make sense of data science-specific API marketplaces that are slowly rising in demand.

An IT leader's grasp on the intricacies of the situation makes a significant impact on how their organization handles the challenges. This is a key part of the puzzle since there is a chance that a lot of the operational machinery set up around APIs can be at risk if this works out phenomenally - and organizations will then have to tackle this by adapting at a quick speed. However, it could also be that this doesn't even make a dent in larger marketplace cycles.

Conclusion

In my opinion, these are some of the crucial things to consider for any upcoming IT head: an understanding of scale, keeping informed on any new innovations, as well as spearheading changing technologies, and leveraging them for the long term. ■

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