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Bardess Group

TOP
Machine Learning
Solution Providers
2020
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The annual listing of 25 companies that are at the forefront of providing Machine Learning solutions and transforming businesses

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How much would your business improve if you could really predict the future?

Let Bardess® show you how your company can instantly, accurately and efficiently forecast and make better business decisions.

For over 20 years, the Bardess Group,LTD has built their consulting business on providing unique data-analytics solutions and insights that are tailored specifically to their client's business needs. These solutions take advantage of a world-class partner ecosystem and their unique ability to create innovative solutions. Bardess's elite team of highly experienced data-analytics consultants and data scientists drive value through thoughtful design, strong partnerships and rapid time to value for each client, which is why they are sought-after by Fortune 500 companies and forward-focused mid-sized companies.

At the 2019 Gartner Symposium, Bardess took a bold strategic step by becoming the North American Master Reseller for Tangent Works™, and creating Tangent Works US, a wholly owned subsidiary of the Bardess Group, Ltd. Tangent Works has created a breakthrough machine learning (InstantML) approach for time series forecasting and anomaly detection and is introducing it to the North American market. In an interview with CIO Applications, Bardess Group CEO, Barbara Pound, talks about Machine Learning; Tangent Works; helping companies learn how to forecast instantly, accurately, efficiently; and otherways that her company helps clients transform data into insights and action.

Tell us about Tangent Works and why Bardess thinks it's such a disruptive and important technology in the machine learning (ML) space?

Tangent Works is a Belgian company that was founded in 2014 by a team of datascientists and mathematicians who believed in the power of predictive modeling for optimizing operations and reducing costs but found

that the existing methods were far too complex for broad adoption. Tangent Works is the company behind TIM (Tangent Information Modeler) that Bardess recently introduced to the US market. This led to the concept of InstantML, a solution to transform time series data into reliable insights in seconds and at an affordable price point.

Tangent Works created InstantML to deliver highly accurate time series forecasts and anomaly detection with minimal user configuration, which makes it ideal for quick deployment. The algorithm is extremely fast, taking only a few seconds to build a model. InstantML not only simplifies the model selection and automates feature engineering but also tremendously shortens the lengthy process of developing the right model at the right moment, which is crucial for the time series problems. The dynamics in these problems change with every new data collected, and the new data availability can also change from one minute to another. TIM's ability to generate a new model on the spot without any specific settings enables immediate forecasting and anomaly detection. We've all seen diagrams that feature fast, good and cheap and explain that you can only chose two. Well, TIM is a true paradigm shift on that model which shows the true potential of machine learning: you can finally get all three features with InstantML.

Another feature that makes TIM attractive to many of our current customers is the ease of integration with their existing software investments. TIM is integrated with Qlik, Alteryx, Tableau, Microsoft Power BI, Excel and others out of the box. There's also a standalone, browser-based TIM Studio which can be used to swiftly and easily build out your forecasts with visualizations that clearly explain the process and the data used. TIM Studio

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is available on both the AWS Marketplace and Micrsoft Azure Marketplace, so organizations can get started leveraging the power of InstantML with just a few clicks.

What challenges are companies facing in the ML space? How is Bardess addressing these issues?

We see companies still awash in ungoverned, siloed data despite major investments in data warehouse and data lakes. In these scenarios, it is difficult to deploy ML on a massive scale. The effort to prepare this data for analysis is often underestimated, leading to disappointment and failed projects.

Add to that the current experience of a global pandemic and you have an entirely new set of challenges to deal with. We believe companies that are poised to take advantage of machine learning will be best positioned to adapt to the new normal, whatever that normal turns out to be.

Bardess has developed a framework called Zero2Hero® (z2h®), which balances the desire for quick wins with the cost and difficulty involved in the data prep efforts. Essentially, z2H® uses modern, flexible technologies and delivers business value for a thin-slice use case. The thin slice is determined or chosen by starting with a "ROI'able" use case and working backwards to narrow data requirements. Adjacent use cases are then appended, each one delivering value while building out the foundational data layer.

> Bardess Group brings deep expertise in data science, with PhD-level data scientists who can help set up the architecture and data flow required to enable TIM to instantly, accurately and efficiently solve the difficult problems that businesses face today

This framework allows customers to deploy ML and see a return on their investment while also understanding the effort required to prepare data for ML use cases. Businesses can then decide if it is worth scaling up. We like to think of it as an "easy button" for ML deployments. Key to the success of z2H is the selection of technologies that allow for best of breed core capabilities, the democratization of analytics, and openness of their technologies to integrate with others so that the whole is more valuable than the sum of the parts, all delivered by a results framework that emphasizes agility and rapid time to value.

What are some of needs that you expect in the ML space this year and how is Bardess and Tangent Works US planning to leverage them?

We see two forces shaping the adoption of machine learning this year. The first is a renewed emphasis on data governance and the realization that the failures of past machine learning projects had little to do with data scientists or their algorithms and was mostly due to poor governance and delivery of data. The

second is the rise of AutoML technologies and their continued quest to automate more of the data science workflow, including data prep for feature engineering and MLOps for deployment management. Training an algorithm is no longer a constraint.

Bardess has expanded our capabilities beyond the scope of what is usually considered "analytics" to include data management, a key driver to assist companies to prepare themselves for ML. Further, Bardess is recommending the pervasive use of AutoML technologies to democratize data science and allow users of all types to uncover new valuable use cases across the business. In particular, the investment Bardess has made in Tangent Works InstantML is critical to the industry to address what we see as a current weakness with all other AutoML technologies which is they rely on brute force (heavy compute effort) to select the best algorithm and hyper parameters, at the expense of rapid results.

During this unprecedented time of turbulence, how is Bardess helping its clients survive and thrive?

As Gartner has stated, now is a critical time to make sure that every business is getting the most value and utility out of their assets especially their data. "At Bardess, this isn't a new thought or thinking but exactly aligns to who we are and what we are about. It's all about maximizing value. That's why we are so intensely focused on time to value in everything we do," Says CEO Pound.

TIM is a perfect example of a solution that can make an immediate value for so many companies and industries. TIM's use cases range from demand planning in retail, predictive maintenance of machines in a manufacturing, resource management in healthcare organizations, anticipate energy production for power plants, predict defaults of loans for banking, to name a few. It all comes down to forecasting and/or anomaly detection with time series, exactly the subjects in which TIM excels. TIM reduces the need for valuable resources (expertise, time and money) and helps users to leverage the insights hidden in their data for immediate and actionable business information.

In addition, we continue to invest on both ends of the data value chain, on the data management and data preparation side so we can assist our customers to a future where ML is pervasive, and on the other end with data science with visualization capabilities built around the new breed of AutoML technologies as they mature. By demonstrating the value that can be delivered for time series forecasting and anomaly detection using Tangent Works, we will be evangelizing a new era in how AutoML and InstantML technologies should work. **CA**