

CHIEF DATA & ANALYTICS OFFICERS,  
FINANCIAL SERVICES

EXECUTIVE INTERVIEW WITH:

TIBCO®

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1. Tell us about your experience in working with the data analytics community at Tibco? Why do you like working in this space?

TIBCO's DNA is to "make the impossible possible," so every day, we get to work with companies solving tough problems. That leads to a lot of technical creativity, new ideas, patents and business opportunities as analytics and data science evolves.

And, the innovation and competition in analytics is white-hot, which means there's always a new idea, a new \$100M going into a startup, and a new piece of open source technology to work with. So the rate of change in the ecosystem ensures there's never a dull moment in the tech space.

2. What are some of the common roadblocks you've helped your clients work through?

A rising challenge today is helping our customer apply AI to data in motion, instead of just data at rest. Every industry has new forms of flowing, streaming data, but they don't know how apply AI to it, because it breaks traditional data science techniques. The challenge is to adopt a new way to think about the AI: streaming data requires new, uncommon techniques that deal with dynamically sliding windows of data and adaptive ML models, rather than the traditional approach of stick-the-data-in-a-datalake-and-train-a-model. Streaming data science is a different way of thinking.

The other big roadblock today is operationalizing AI and ML models is one of the new frontiers in analytics that's trending in the past 12 months. The business challenge is that every company wants to do

more AI, but the bottleneck is not doing the science, it's getting the science into use, into production. Now, technology exists to, for example, put a Python model into production, but what's missing is the ability to do that in a way that's well governed, traceable and managed. Business users are reticent to risk a key business process on AI unless they know a model is tested and measured. So "model operations" is a key new roadblock we're working on.

3. Where have you seen CDAOs deliver the most significant ROI within the business? (Or the most value to the business)

Bringing AI closer to the edge of the business brings new, and bigger, ROI. The edge is where billions of decisions can be automated each and every day. For example, we see intelligence "next best action" applications apply predictive models to each and every interaction with a customer, 24 hours a day: insurance companies evaluate risk to price insurance policies with AI in milliseconds, instead of days; oil companies use AI in real-time to predict equipment failure before it happens; airports predict and fix backups before you're standing in a line. We think AI-driven automation and intelligent operations is the future of computing, and it's just beginning.

4. What business challenges are CDAOs best positioned to solve for the C-suite? How can they show ROI for the business?

Pushing AI to the edge, to real-time, is one way. But again, this presents a challenge: how to track, trace, measure, secure and

govern AI models.

One CDAO I know thinks of her AI algorithms as employees: she “interviews” each algorithm with solid testing, does “performance reviews” by carefully monitoring AI decisions, and keeps a “performance history” by tracing results and reviewing those results on a regular basis. Like employees, some algorithms are promoted, some are retrained, and some are fired.

This, again, is the field of AI model operations, and we’re just at the beginning of having the tools needed to manage algorithms at enterprise scale.

5. How has the CDAO toolkit evolved and where does Tibco fit within that?

TIBCO is already a leader in, for example, the Gartner MQ for data science, based on our tooling to help data scientists train and deploy data science models. Less known, and evolving, is the areas of streaming data science and Model Ops.

The other area TIBCO shines in is democratizing AI models in self-service BI tools. Our pioneering product there is Spotfire, and, just this quarter for example, we introduced a brand new, point-and-click way for business analysts to drop Python into any BI dashboard or analysis they choose. This is part of another key trend: democratizing data science. We’re doing some cool stuff there, too.

6. What project has been the most rewarding for your team this year?

I think the most important innovations lie in putting AI technology at the fingertips of non-technologist. For example, Spotfire's Interactive AI helps non data scientists use Python models created by a data scientist in seconds. Spotfire Streaming makes it as easy to connect to real-time, streaming IoT data as it is to connect to an Excel spreadsheet.

These innovations don't get the hackathon crowd in a tizzy, they quietly deliver business value to the business. That's what gets me most excited.

7. What keeps most data/ analytics professionals up at night?

Automation. Let's face it, automation is inevitable, and it's hard. Although we all see it on TV, and we even hear presidential candidates talking about the threat of automation, but there are only so many Telsas and Ubers out there: mainstream businesses struggle with how to innovate and automate, in a safe and managed way.

8. What major disruptions are on the horizon that CDAOs should start strategically preparing for now to stay ahead?

99% of the AI being done today is backwards-looking: firms store a bunch of data and train models in hopes to predict the future.

The problem with this model is, traditional data science assumes that the world will stay the same, that the same patterns and conditions from yesterday will happen tomorrow. For some industries, that's a good assumption.

But in an automated, real-time world, conditions change in a second: news breaks on social media in seconds, and those gyrations can make markets move, buying behaviour change, and create new customer interaction opportunities in the blink of an eye. Most companies have no idea how to deal with such volatile environments and have to rethink how to apply AI in real-time.

9. While finance is often seen as a leader in the data & analytics space, the CDAO Community is still in its infancy compared to many other C-suite positions. What value do you feel a face to face peer experience like the Chief Data & Analytics Officers, Financial Services event bring to the community?

Most FSI firms, due to what some would call onerous regulation, have stopped innovating. Algorithmic trading used to be on the bleeding edge of innovation, and now that innovation has shifted to IoT systems, fields like energy exploration and even online retail. In recent years, the biggest request I've had from the executive clients I sponsor is to talk to other C-suite executives from outside of FSI to learn about the latest automation and AI technologies.

10. How does Tibco's solutions give your clients a competitive advantage?

TIBCO takes the most sophisticated technologies from the valley and makes them easy to use. Sure, we geek out on the latest tech, the latest AI innovation, and the latest IoT developments, but our mission in life is to bridge the gap between complex tech and business value. To make the newest AI model usable in 10 seconds by a subject matter expert, or make it as easy to open real-time Kafka data as it is to open an Excel spreadsheet. The innovation is in the simplicity.

11. For fun, tell us about the company culture at Tibco and why people love to work with your team.

Our founder Vivek Ranadive used to call TIBCO "a billion-dollar start-up," and I think that's still a true statement. We're constantly patenting new stuff, evaluating the good, bad and ugly to come out of the valley, and pushing the boundary. We're not necessarily going for the moon-shot, to be the next Unicorn, but rather we're turning complex technologies into real, tangible business value. As Vivek used to say, if TIBCO doesn't work, then planes don't fly, packages don't get delivered, and trading doesn't happen on Wall Street. That's pretty exciting.