CEOCFO Magazine - The Most Powerful Name In Corporate News and Information

Breakthrough Technology for the Seamless Extrapolation of Complex Data

**Technology
Analytics**

Nutonian, Inc.
25 1st St. Ste 303
Cambridge, MA
02141-1823
617-588-2637
www.nutonian.com

**Michael Schmidt
CEO**

About Nutonian, Inc.:
Founded in 2011 by two of the world's best data scientists (Forbes), Nutonian has developed a breakthrough technology that enables anyone to uncover and explain the intrinsic relationships hidden within complex data. The ability to not only predict, but to easily understand "how things work", will fundamentally change the way businesses extract value from their data.

**Interview conducted by:
Lynn Fosse, Senior Editor**

CEOCFO: Mr. Schmidt, your site indicates that Nutonian enables anyone to unravel and explain complex patterns in data. How so?

Mr. Schmidt: One of the biggest problems that we have to day is that we have the capability to collect tons and tons of data. Recently most of the innovation has been around storing, retrieving and querying that data really efficiently and effectively. Therefore, the next major challenge is being able to extract value from the data. The more people that can access that data and use it in a useful way, the higher impact that data can have, so that is what we are focused at Nutonian.

CEOCFO: Who is using your services today?
Mr. Schmidt: These are science based products. We also have respective products for business users and large enterprise. However, we have probably had the most interest from the scientific community in being able to make discoveries from the data they collect during experiments. That is where we started out as a company. It has come from all types of fields; everything from people studying the universe, for example, characterizing how galaxies form, to researchers in medicine and biology that want to understand the early warning signs of cancer or macular degeneration or health treatments and things like that.

CEOCFO: How is your offering different from others? What do you understand that perhaps others do not?
Mr. Schmidt: One of the biggest things that we do is we can describe how things work directly from the raw data. There are many tools out there that if you already know how things work they can visualize data for you. They can calculate statistics for you. They can make predictions. However, they typically cannot explain something new that you did not know

already. That is where we come in. We are able to take that data, crunch the numbers and tell you something you did not know ahead of time or that you did not know before you started or was still hidden and obvious when you started looking at that data.

CEOCFO: Could you give us a concrete example so we can understand how that works on a real basis?
Mr. Schmidt: Yes. For example, one of our largest customers right now is the Air Force. They are interested in understanding how material properties work and how to make better engine parts that can withstand higher temperatures, higher pressures and things like that. This is an uncharted territory for them because they are making new materials that have never been made before, how do you go about creating a better material; a stronger and more durable part? We have been working with them on taking their process data and manufacturing data and showing them, "These are the levers in your manufacturing plan that you should be pulling in order to maximize the strength of the material." We could tell you what the limiting factors are and how everything works, even if you know nothing about the system ahead of time.

CEOCFO: When you are speaking with a prospective customer do they understand what your system is capable of? Is there an aha moment when they get it?
Mr. Schmidt: Absolutely! One of the biggest 'aha' moments we see is when our software confirms things that they probably knew already. Therefore, many times we will go in and show them, "Here is what is in your data."

With the first few things they will probably say, "Yes, we knew about that factor." However, the next ten they never even thought of or even considered as an influencer for the things in their data. What is unique about our technology is that using the raw data, we can build an analytical model you can interpret and understand, whereas the past twenty years of machine learning research and innovation has been around being able to predict very well, but not actually explain those predictions; why is the friction up or down. What is really differentiating for us is that we can not only predict, but also give an explanation and reason why, justification. We can also give you an intuitive understanding of why things are happening or changing.

CEOCFO: Your flagship product is Eureqa. Would you tell us a little bit about the different versions? Are there bells and whistles? Are there different portions that people tend to use more than others?

Mr. Schmidt: Yes. Eureqa is a family of products. The Eureqa desktop software is really purpose built for data-scientists and engineers. We also have a plugin for Excel that gives business users much of the same functionality, but without the same learning curve. Then, our third offering is for enterprises that want to do this on a massive scale, that want to automate and fully analyze all of their data as it comes in on regular periods and things like that, for anything from authorizations to store authorizations to operations; everything you could possible want to optimize within a company or an enterprise.

CEOCFO: With so many customers in so many potential areas how do you focus? How do you reach potential clients?

Mr. Schmidt: We have been very fortunate that many of our customers have been coming to us saying, "We tried out your advanced tools. How do we make this work on our larger problems on a larger scale?" We are fortunate enough, especially at our stage, where we have had customers

and clients coming to us with their problems and we basically showed them how to solve it using the technology we have. It is definitely a challenge. We want to make a very generally available and high impact product and technology that is suitable for anyone with data, because it is a unique opportunity for the technology that we have, especially compared to traditional big data analytics or business intelligence where you have to have particular types of data. You need to know what your variables are to make sure that they are properly prepared. With ours, we do not really care what data you start with. We will tell you the most interesting things from whatever data you have available.

CEOCFO: What were some of the challenges in putting together the offering? It sounds so simple now, but I am sure it was not simple to get it up and running.

Mr. Schmidt: The biggest challenge is that making this type of analysis scale for large data and for really difficult

> **"What is unique about our technology is that using the raw data, we can build an analytical model you can interpret and understand . . . We can also give you an intuitive understanding of why things are happening or changing."**
> **– Michael Schmidt**

problems. Much of our technology goes into making that very, very efficient. People have been trying to do this type of analysis for a few years now, ever since the mid 1990s. However, we did not have enough data back then. We also did not have the right algorithms and we did not have the same computing power as we have today. Therefore, all of those three things combined have changed the game in terms of data analytics. It has only really culminated in the past year or two where we have all three of those that make this realistic and possible for the first time. The algorithmic part, for example, is based on a lot of the work that I was doing back in grad school before forming the company and doing the fundamental research to make this even possible. We have had a lot of breakthroughs on

all fronts, being able to do this effectively and efficiently and now we can do it. It just happened to be perfect timing for the need of the market as well, in terms of how we extract the most value out of all this data, now that we are invested in collecting as much as we can.

CEOCFO: How is business today?
Mr. Schmidt: Great! We have been a little overwhelmed with the interest. We are trying to grow as quickly as we can to keep up with the opportunity. We are one hundred percent focused on now scaling the resources and the team and so on. It is very, very exciting for the stage that we are in to be getting this much traction this early on. Therefore, that is what we are focused on now; it is a challenge.

CEOCFO: Are you funded for the next steps? Will you be seeking funding?
Mr. Schmidt: We are backed by Atlas Venture and just recently closed a $4 million Series A round of financing.

CEOCFO: What are your plans for the funds?
Mr. Schmidt: We are going to continue investing heavily in engineering, while ramping up marketing, sales and other essential functions that are needed to grow and support the commercialization of the technology.

CEOCFO: Will you be adding to the team? Will you be using outside people? Do you have a plan in place yet?
Mr. Schmidt: Yes. We are hiring as quickly as we can. One of the nice things about being in Boston, especially in the area where we are, is that we have access to a lot of great talent with all of the university research and schools around here. Therefore, we are in the process of hiring all of that in house and scaling the company.

CEOCFO: What are the intangibles that you look for in your people? What type of person do you want for your company?
Mr. Schmidt: I want them to be very hard working. I think that people want

to have really high impact and basically change the way that data gets used across users and also see that as one of the biggest immediate challenges today that we are ready to solve. People that are hard working and want to have that high-level of impact early on are invaluable.

CEOCFO: Why pay attention to Nutonian?

Mr. Schmidt: They should pay attention because there is nothing else like it today, even with all of the stuff that is going in the big data space and analytic space. The thing is there have been these enormous promises made about the value of big data. We talk to customers about spending millions per month collecting and storing that data and there is desperation now to be able to get the value off of that data. That is the next frontier. It is the next major challenge that we are ready to solve and we are going to be the ones to do it.

Nutonian, Inc.

25 1st St. Ste 303
Cambridge, MA
02141-1823
617-588-2637
www.nutonian.com