Best Sell-Side Newcomer –Trading, Pricing & Analytics: Riskfuel Analytics

Product: Riskfuel DNN

Ryan Ferguson
Riskfuel Analytics

" For 15 years, I worked as a derivatives trader, trading both cleared and OTC derivatives across a variety of asset classes including credit, equities and rates. Over those years, technological change improved every bit of the trade lifecycle of my cleared trades. But the OTC side did not keep pace. The massive compute bottleneck of valuation and risk sensitivities calculations limited substantive improvements in valuation and risk management technologies. By dramatically accelerating these slow models, Riskfuel breaks the bottleneck and unleashes the potential of incredible innovation in OTC derivatives."

Ryan Ferguson, CEO, Riskfuel

500%

Saw first influx of revenue in 2020, and expects to increase revenues by 500% in 2021.

WHAT'S NEW

- Riskfuel is a new startup incorporated in January 2019. It began its first pilot program with Scotiabank in December 2019 and successfully accelerated its first for-production model in 2020.

- This first model, an FX Barrier Option model, was designed to run on the cloud and to exploit the parallelization of graphical processing units (GPUs) on the Azure GPU platform. Microsoft noted that Azure GPUs combined with Riskfuel's tech offered 20 million times faster valuation of derivatives.

- The underlying technology has two parts: first, the generation of training data, and second, the training of a deep neural network (DNN) using this training data that will mimic the customer's model. First, the customer's model is run millions of times to produce valuations for the full range of possible scenarios. Then the DNN is taught to understand the behavior of the customer's model through observation of the training data.

Doubled headcount

Doubled headcount in second year of existence.

Awarded

Was awarded the Futures Industry Association's "Innovator of the Year," and its customer, Scotiabank, won *Risk.net*'s "Technology Innovation of the Year" for the bank's XVA platform using Riskfuel DNN technology.

WHY THEY WON

Riskfuel got off to a flying start by landing Scotiabank to help build the Canadian bank's XVA platform using the vendor's deep neural network (DNN) platform, and uses this advanced form of machine learning to understand the behavior of conventional pricing models. The vendor was only started a little over two years ago, and it only started bringing in revenue last year, but Riskfuel's use of cutting-edge technology could help it to spread quickly in the capital markets.

WHAT'S TO COME

- The company plans to expand outside of Canada into new geographies throughout 2021.
- Riskfuel is in pilot with several global banks, with the hope of going live in the next year.
- Riskfuel is also looking to expand into a second vertical market. It is working on a pilot project to adapt its technology for use in the insurance industry and expects to start marketing to insurance firms in 2021.