Snowflake + DataRobot
Unlock the Value of Data at Beacon Street Services

David Kline, VP of Engineering at Beacon Street Services, had a vision — an ideal setup in his mind for what he believed a thriving enterprise data architecture should look like.

"My high-level vision of the architecture is that Snowflake is the hub," said David. "It’s really critical, because all of our data is housed in Snowflake, that any system that needs data needs to be able to source it from Snowflake’s Cloud Data Platform."

"So that’s why I say it was an absolute showstopper for me that DataRobot integrates seamlessly with Snowflake."

David’s vision to have one single source of truth for all of the financial services company’s data, housed within Snowflake, is meant to ensure consistency and accuracy across all applications of that data. Having migrated from AWS Redshift to Snowflake several years ago, David and his team had taken advantage of how easy and economical it was to collect and store great volumes of data within Snowflake. Whether it was Salesforce CRM data, subscription and billing services data, or website data, David and his team — including Senior Data Engineer Stephen Pidliskey — soon found themselves with tons of valuable data on their hands.

"Stephen and myself, we tend to find ourselves being data hoarders, so we’ll just take whatever we can get," said David. "So we’ve been storing all this data, but not really leveraging it. We hadn’t used a lot of it but we’ve just kept it hanging around...until DataRobot came into our lives."

Going from Data Storage to Data Science

Beacon Street Services is the services arm (and one of a handful of affiliates) of Stansberry Holdings, and they produce financial publications that are exclusively available through purchased subscriptions. For its marketing and sales teams, there was an opportunity to improve on previous tactics and processes of selling subscriptions, with a clearer feedback loop and signal for marketers to optimize their campaigns.

Realized ROI
Beacon Street Services is on track to realizing $15 million in additional annual sales directly attributable to DataRobot.
David realized there was value to applying a data science approach to this, especially given the wealth of valuable data they already had. With a modeling approach, they hoped to better identify buying criteria to help their marketing team run more targeted — and effective — campaigns.

Once Stephen took the historical user data they had in their Snowflake data warehouse and loaded it into DataRobot’s enterprise AI platform, the team was able to build a series of models quickly and automatically, using dozens of the latest cutting-edge data science algorithms. Running an A/B test between their existing process and the new Snowflake + DataRobot methodology saw the new process gain a 10% lift. For the volume of marketing campaigns the team was running, that 10% lift could represent a significant business impact, so David and his team couldn’t wait to put it into production.

“What DataRobot allowed us to do was take our historical data in Snowflake and easily train, test, optimize, and deploy business learning models into our production environment to easily create business value,” said Stephen. “DataRobot handled all the boring aspects of data science, like having to manually create fully trained models against various algorithms. DataRobot does all that, as well as a simple one-click deployment process.”

Along with the improved accuracy and optimized targeting from DataRobot’s models, the platform also provided a significant time savings for Stephen. Previously, it would take him as long as six weeks to develop a model, with no guarantees that the optimal algorithm was selected. With DataRobot, that time to develop and deploy models that used more appropriate algorithms had been reduced to just one week.

And the business impact has been significant: Beacon Street Services is on track to realizing $15 million in additional annual sales directly attributable to DataRobot.
How the Integration Between Snowflake and DataRobot Works

What makes the entire process so smooth and effective is not just the smooth integration between Snowflake and DataRobot, but also the smooth integration between Snowflake and Beacon Street’s business intelligence (BI) platforms. As the Senior Data Engineer, Stephen has played a key role in setting up and optimizing the tech architecture at Beacon Street Services.

"It's a pretty seamless handoff to be honest, in terms of leveraging Snowflake as a storage for everything, including the scores, predictions, training sets, everything data-related really," said Stephen. "And then the handoff to creating a BI model on top of those scores and sharing that BI model with the marketing and sales team to visualize."

When Stephen gets an incoming request from a business stakeholder, he fires off a few Rundeck jobs to automatically pull the appropriate data out of Snowflake and against the DataRobot API. Stephen then tweaks the models, does some testing, and deploys the model into the production environment using another DataRobot API. The predictions data is written back into Snowflake and, shortly thereafter, is visualized and accessible to the sales and marketing teams for insight consumption.

"The DataRobot platform makes it extremely easy to suck in data from Snowflake and create and train models and deploy those models into deployment areas," said Stephen. "With all the automation, algorithms and smooth integration with Snowflake, it has freed up my time for more business-value projects, and we’ve really delivered a big impact to the sales and marketing teams and their subscription campaigns."

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