DataRobot In the Classroom

You can’t appreciate the good without first going through the difficult.

That’s the lesson that Anton Ovchinnikov, Distinguished Faculty Professor of Management Analytics at the Smith School of Business at Queen’s University in Canada, and Visiting Professor at INSEAD Business School in France, hopes to impart to his students in exposing them to DataRobot’s automated machine learning platform.

Anton teaches courses in predictive modeling, data science and machine learning at both schools, with the Master of Management Analytics (MMA) and Master’s in Management of Artificial Intelligence (MMAI) programs at Queen’s University in Canada and the MBA and Global Executive MBA program at INSEAD in France and in Singapore, where he co-teaches with Profs. Theos Evgeniou and Spyros Zoumpoulis. As part of the curriculum at both schools, Anton wanted to introduce the possibility of driverless and automated AI applications to his students and began reaching out to his alumni base. Soon, Anton was corresponding with John Boersma, Director of Educational Services at DataRobot.

“DataRobot helps many top business schools add automated machine learning to their curriculum. This allows students to focus on the broader strategic role of machine learning instead of focusing solely on coding and the details of algorithms.”

—John Boersma, Director of Educational Services at DataRobot

School Info:
Name: Smith School of Business - Queen’s University
Location: Kingston, Ontario, Canada
Established: 1919

Smith School of Business at Queen’s University has received international recognition for its innovative approach to business education, including creating ground-breaking programs and courses in emerging areas including artificial intelligence, fintech, analytics, cultural diversity, team dynamics, social impact and more.
“At both Queen’s and INSEAD, we are strong believers in open source software engineering,” said Anton. “Therefore, using only one commercial provider like DataRobot in our courses would be off sync with that philosophy. What we want is for our students to know that this technology exists, to learn about it, and if some of them are interested, if it’s valuable enough, they would buy it professionally. But before they do that, I think it’s important for them to understand a little bit of what’s going on under the hood.”

And as Anton and his students soon learned, there was indeed a lot going on under the hood of the DataRobot automated machine learning platform.

**DataRobot in Action**

Anton’s students are typically working professionals whom he describes as “consumers of analytics, not producers of analytics.” Many of them are, or will soon be, managers of analytical projects and teams. As part of Anton’s courses, he wants his students to familiarize themselves with the raw coding, at least at a basic level, in order to fully understand what’s behind the curtain of what they’re trying to predict -- his students typically work in RStudio, and have reasonable familiarity with predictive modeling techniques. Only when they have a base analysis and understanding of the fundamental problem and the code behind it will Anton present how DataRobot and automation can be a solution.

“What makes things relevant for students is when speakers talk about something that students are already familiar with,” said Anton. “John demoed DataRobot in the context of the assignments that students worked on. Everybody in the class already had an intimate understanding of the issue being discussed, and they had already tried building their own models and applying them to solve the problem.”
One such problem that Anton’s students had worked on is Retention Modeling at a Scholastic Travel Company, a case study that Anton had published through the University of Virginia’s Darden Business Publishing. The case study is a retention modeling exercise, focused on predicting customer churn. The accompanying dataset features lots of different columns and categories, and students are tasked with building models that accurately predict which customers are likely to be retained. After a week of working on the case assignment by manually coding predictive models, the arrival of guest lecturer John Boersma with DataRobot under his arm is a real sight for sore eyes. As John plugs in the Retention Modeling dataset and demos DataRobot in the context of that problem, “the students just sat there with their mouths wide open,” as Anton recalls.

“What DataRobot allows them to do is a lot of the same things automatically, and they can focus their time on where their managerial talent is more valuable, like generating new features or understanding the data better.”

— Anton Ovchinnikov
Distinguished Professor of Management Analytics at Smith School of Business at Queen’s University in Canada

“The students are very, very impressed when they first see DataRobot,” said Anton. “All of them have tried applying different models, and they know what results they’ve been able to produce manually. When John comes in and plugs in DataRobot and the wheels start rotating, the students see that everything they previously had to do manually, the software is doing for them, while they’re drinking coffee!”

The students then have access to the DataRobot platform to play around with for a limited time. According to Anton, a number of them end up finding automated machine learning to be so valuable that they begin commercial evaluations at their companies. For both John and Anton, the guest lecturer relationship has been a mutually beneficial arrangement.