Scaling a Small Data Team with the Power of Machine Learning

Enabling Non-Technical Staff to Perform Advanced Customer Segmentation, Content Attribution, Churn Prediction, and More

Until recently, the sports entertainment industry was dominated by cable or satellite TV systems and companies; if a customer wanted to watch a particular sporting event, he had little (or no) choice in how to do so. Now that consumers are breaking free from traditional TV, they are increasingly turning to specialized services streaming exactly the content they're looking for, whether live or on-demand. And while they are willing to pay for these services, it means that entertainment companies - in the absence of the aforementioned virtual monopoly of TV broadcasts - are held to increasingly higher standards when it comes to quality and offerings.

In other words, because customers can turn elsewhere, entertainment companies have had to up their game (so to speak). Today, that means bringing innovation by way of predictive analytics and machine learning to optimize every aspect of the business, from marketing to customer service to product offerings. To do this efficiently, they must also bring this innovation at scale, hiring fewer people to do more such that insights grow exponentially along with the amount of data being collected. But how?

SCALING A SMALL DATA TEAM WITH THE POWER OF MACHINE LEARNING

About Our Customer

DAZN is a subscription service owned by Perform Group dedicated to live and on-demand streaming of worldwide sporting events. It offers access to more than 8,000 sporting events a year across a wide range of devices to customers in Austria, Germany, Japan, Switzerland, and Canada, with more markets coming soon.

Industry

Sports Entertainment

Markets

Austria, Germany, Japan, Switzerland, and Canada

Use Cases

Advanced Customer Segmentation, Content Attribution Modeling, Churn Modeling, and Propensity Modeling

Challenge

Quickly Enable Non-Technical Data Team to Be Self-Sufficient

In an effort to continue to grow their business in existing and new markets, DAZN - a subscription sports streaming service - wanted a fast, low-maintenance way to enable their small data team to run predictive analytics and machine learning projects at scale.

In addition, they wanted to find a way to allow data analysts who were not necessarily technical or experienced in machine learning to be able to contribute in meaningful ways to impactful data projects. Ultimately, they wanted to support an underlying data culture with advanced analytics and machine learning at the heart of the business.

Solution

Dataiku + AWS for More Models with Fewer People

DAZN knew that in order to accomplish their goals quickly, they would need technologies that were simple and in the cloud. They turned to Amazon Web Services (AWS) and Dataiku Data Science Studio (DSS) in combination for their simplicity in setup, connection, integration, and usability, and they got up and running in under one hour.

With AWS and Dataiku, the small data team built and now manages more than 30 models in parallel, all without needing to do any coding so that the processes are completely accessible to non-technical team members. They use these models as the basis for a variety of critical processes throughout all areas of the business, namely:

- **Content attribution** to determine what fixtures are driving sales, enabling contextual information on key fixtures in each market.
- **Advanced customer segmentation** to identify user behaviors, particularly regarding content and devices on which customers use the product.
- **Propensity modeling** to identify customers that are likely to churn, enabling improved customer targeting for retention activities.
- **Survival analysis** to understand customer stickiness, enabling calculation of expected revenues to understand customer return on investment.
- **Natural language processing** on social networks for market research.

Impact

Each Data Team Member 2.5x More Efficient in Putting Models in Production

AWS and Dataiku have noticeably shifted the data culture at DAZN and have brought innovations in advanced analytics and machine learning into the spotlight throughout the company. Thanks to Dataiku's ease, simplicity, and huge efficiency gains, DAZN has hired two data analysts who have already gotten up to speed and are doing as much work as five analysts in the pre-Dataiku team.

Overall, the biggest impact has been empowering a non-technical team to create more models than ever before and get them into the production environment quickly to bring real ROI to the business. DAZN plans to continue to grow the team to three data scientists and 6-10 analysts to exponentially increase the number of machine learning models in production.

data iku

Success Story / Sports Entertainment

Project Overview

Technology

AWS

Project Deployment

1 Month

Team

1 Data Scientist
2 Data Analysts

Ease of use accelerates onboarding and time-to-impact of team members

Point-and-click features enable non-technical data team members to do machine learning

Data team has more impact thanks to the ability to quickly deploy to production

Simple setup, connection, and integration with AWS (less than two hoours start to finish)

DAZN & Dataiku: Models in Production at Scale

- Data team members are 2.5x more efficient at putting machine learning models into production.
- Small data team able to scale easily, building and managing more than 30 models.

GET STARTED