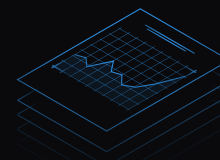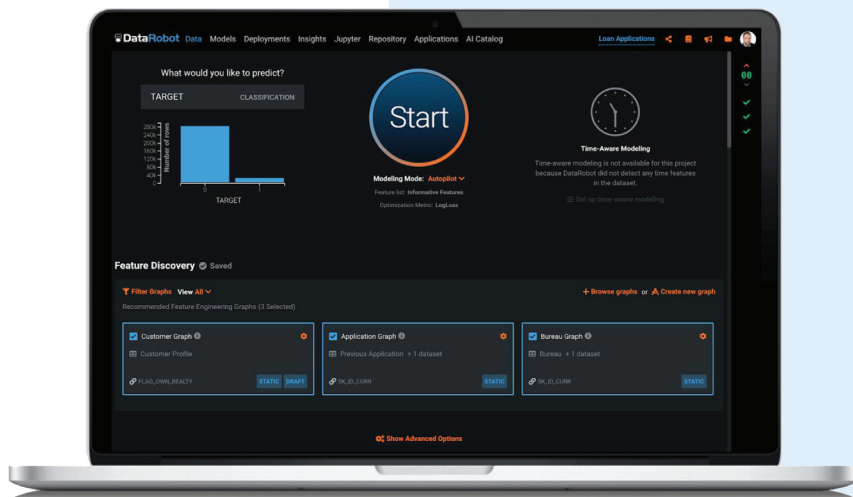# DataRobot Automated Machine Learning

Overview

In 2013, DataRobot invented automated machine learning — and an entirely new category of software as a result. Since then, we've incorporated over 1.4 million hours of engineering innovation and data science best practices into this market-leading product. Unlike other tools that provide limited automation for the complex journey from raw data to return on investment, our Automated Machine Learning product supports all of the steps needed to prepare, build, deploy, monitor, and maintain powerful AI applications at enterprise scale.

End-to-End Acceleration

DataRobot is the only product to automate the entire data science lifecycle from raw data to value. Built-in guardrails at every step ensure that best practices are consistently followed. This accelerates the productivity of your data science team, while increasing your capacity for AI by empowering existing analysts to become citizen data scientists.

- **Automated Data Preparation and Feature Engineering** - DataRobot will automatically catalog, profile, cleanse, and enrich your data and generate the optimal features for your machine learning models.
- **Automated Model Creation and Validation** - DataRobot builds and ranks dozens of models for every AI use case, and provides recommendations on the best ones to deploy based on accuracy and prediction speed.
- **Automated Model Deployment, Monitoring, and Management** - With a single click, you can deploy a model to production and begin monitoring its service health and accuracy so that you always have the most accurate insights possible.

Diverse Data and Models

DataRobot allows you to move beyond typical automated machine learning to build innovative new models from incredibly diverse types of data. Models are obsessively tested on real-world use cases and offer the practical application of next-level AI for your entire organization.

- **Access a Massive Library of Open-Source and Proprietary Models** - Options from classic regression to complex multiclass classifications, boosted tree ensembles, kernels, neural networks, genetic algorithms, and more models are available with every release.
- **Blend Tabular Data with Images and Text** - DataRobot supports diverse data types, including traditional and deep learning approaches to tabular data, differentiated natural language processing for text features, and the ability to easily integrate image data in your AI models.
- **Obsessively Tested on Real-World Data** - We constantly evaluate the latest open-source algorithms and all our modeling approaches are repeatedly tested on real-world data to ensure that they satisfy the most demanding customer requirements.

"We are using DataRobot to make some pretty huge decisions at Steward Health Care. DataRobot is very much part of our growth strategy. A lot of people use the buzzwords of predictive analytics or machine learning, but we're actually doing it."

— **Erin Sullivan**
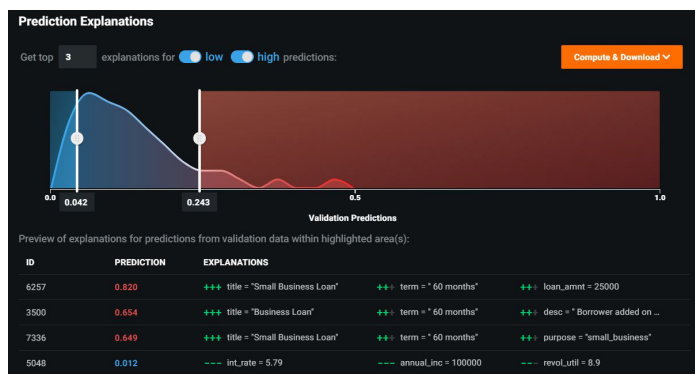**Executive Director,**
Steward Health Care

Human-Friendly Explanations

DataRobot provides fully explainable AI through human-friendly visual insights and automated model documentation. Our explainable AI gives you the confidence to put your models into production, demystifies your AI for risk and compliance purposes, and creates a level of trust your business can rely on.

- **See Each Step** - Detailed blueprints describe how data is preprocessed and the algorithms that are used for every model. You can also automatically generate comprehensive model documentation for auditing and compliance purposes.
- **Evaluate Any Model** - Understand how well models perform using visualizations, including Lift Chart, ROC Curve, Confusion Matrix, Feature Fit, SHAP, and more.
- **Understand Every Prediction** - Detailed visualizations and explanations for every single prediction allow you to understand exactly why a decision was made and the features that have the greatest impact on the prediction.

Prediction Explanations shows you the features driving every single decision

Fully Operational Predictions

All DataRobot models are immediately ready for production to make your AI fully operational. Easily integrate models into business applications in a variety of ways. Respond to model changes with no downtime and realize ROI from your AI today.

- **Deploy Instantly** - Advanced machine learning models can be put into production with a single click. Deploy to an API endpoint or use the UI to get batch predictions. Publish to Hadoop or download the scoring code to embed into your applications.
- **Monitor Performance** - A centralized dashboard allows you to monitor and track any deployed model. You can view service health and accuracy over time, and also understand how models are used and which applications are using them.
- **Manage Model Lifecycle** - Accurate models today can become inaccurate tomorrow. See which features have drifted and update your models with no service interruptions.

Enterprise-Grade AI Platform

DataRobot provides a unified platform designed for a range of users, fostering collaboration and ultimately building an AI culture across your organization. It inspires confidence from IT through tight integration with existing policies and standards and aligns with your choice of deployment strategy on your terms.

- **Collaboration for All Users** - An intuitive UI with guardrails for business and data analysts. Integrated notebooks and command-line interfaces for the code capable.
- **Governed and Secure** - Adheres to and integrates with existing enterprise security policies and IT standards.
- **Deployment Flexibility** - Choose our Managed AI Cloud service, deploy on-premise, or take full control on your cloud platform-of-choice, including AWS, Microsoft Azure and Google Cloud.

"DataRobot has really made the modeling process itself very easy. I've never had as much ease explaining the inner workings of my model as I did with DataRobot. Understanding is the first step to adoption, so I think that really went a long way for machine learning at LendingTree."

lendingtree®

Contact Us

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