



Machine Learning with DataRobot: the next generation in cloud AI

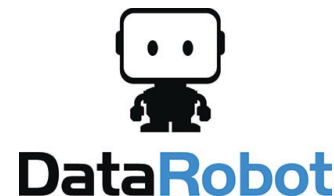
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www.sv-europe.com

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FAQ's

- Is this session being recorded? Yes
- Can I get a copy of the slides? Yes, we'll email a PDF copy to you after the session has ended.
- Can we arrange a re-run for colleagues? Yes, just ask us.
- How can I ask questions? All lines are muted so please use Zoom's Q&A facility – if we run out of time we will follow up with you.



- Premier accredited partner to IBM, Predictive Solutions and DataRobot specialising in advanced analytics & big data technologies
- Work with open source technologies (R, Python, Spark etc.)
- Team each has 15 to 30 years of experience working in the advanced and predictive analytics industry
- Deep experience of applied advanced analytics applications across sectors
 - Retail
 - Gaming
 - Utilities
 - Insurance
 - Telecommunications
 - Media
 - FMCG



A close-up, low-angle shot of a stack of US dollar coins. The coins are stacked vertically, with the top coin clearly showing the 'ONE DOLLAR' inscription. The lighting is dramatic, with warm orange and yellow highlights on the edges of the coins, contrasting with a dark, cool blue background.

Scenario: Predicting Loan Default

DataRobot



Goals

Scenario: Predicting Loan Default

- 1. Illustrate End-to-End Data to Value**
- 2. Show speed and accuracy of model building**
- 3. Showcase feature selection and data preparation**
- 4. Highlight model testing and transparency**
- 5. Illustrate ease and flexibility of deployment**

A close-up, artistic photograph of a stack of coins, likely Euro coins, with warm orange and blue lighting creating a dramatic effect. The coins are stacked in a slightly offset manner, showing their edges and some details of the embossed patterns.

LENDING CLUB

End-To-End
Product **Demo**

Data**Robot**



Let's take a look...

Deployed Models



DataRobot Deployments Model Registry Applications AI Catalog

Deployments List Prediction Jobs

Active Deployments

9

0 Inactive

Predictions

1.44M (+6.6%)

Last 7 Days

Service Health Summary



9 Passing
0 At Risk
0 Failing

Data Drift Summary



9 Passing
0 At Risk
0 Failing


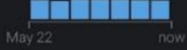
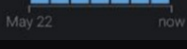
Accuracy Summary



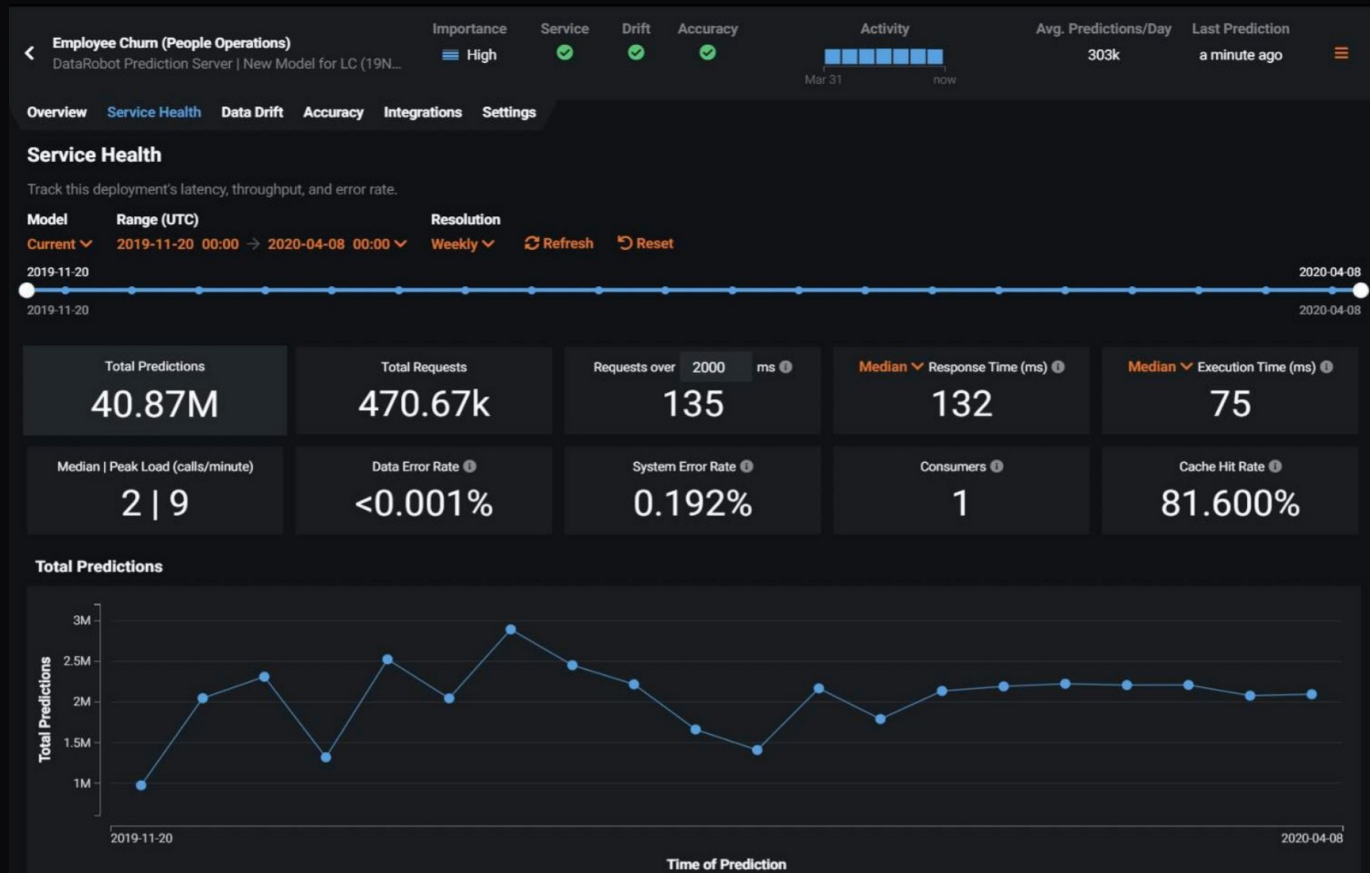
9 Passing
0 At Risk
0 Failing

Search + Add Deployment Filters (0)

Columns Prediction Health Rows 1-9 of 9

Deployment Name	Service	Drift	Accuracy ↑	Activity	Avg. Predictions/Day	Last Prediction
MMM BostonMon Twitter messages polarity monitoring in Bosto DataRobot Prediction Server newdata.csv NEEDS APPROVAL	✓	✓	✓	 May 22 now	28k	a few seconds ago
Demo Probability of Default (Risk Management) DataRobot Prediction Server New Model for LC (19NOV) Project	✓	✓	✓	 May 22 now	22k	a minute ago
Employee Candidate Score (People Operations) DataRobot Prediction Server New Model for LC (19NOV) Project	✓	✓	✓	 May 22 now	22k	a few seconds ago
Interest Score (Marketing) DataRobot Prediction Server New Model for LC (19NOV) Project	✓	✓	✓	 May 22 now	22k	a few seconds ago
Compute Optimization (CloudOps) DataRobot Prediction Server New Model for LC (19NOV) Project	✓	✓	✓	 May 22 now	22k	a few seconds ago

Deployed Models: Service Health



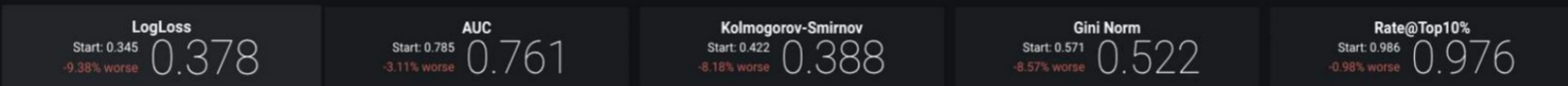
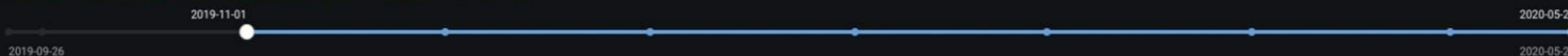
Deployed Models: Accuracy



Accuracy

Assess the accuracy of this deployment's predictions over time.

Model **Previous** Range (UTC) **2019-09-26 00:00 → 2020-05-20 00:00** Resolution **Monthly** Refresh



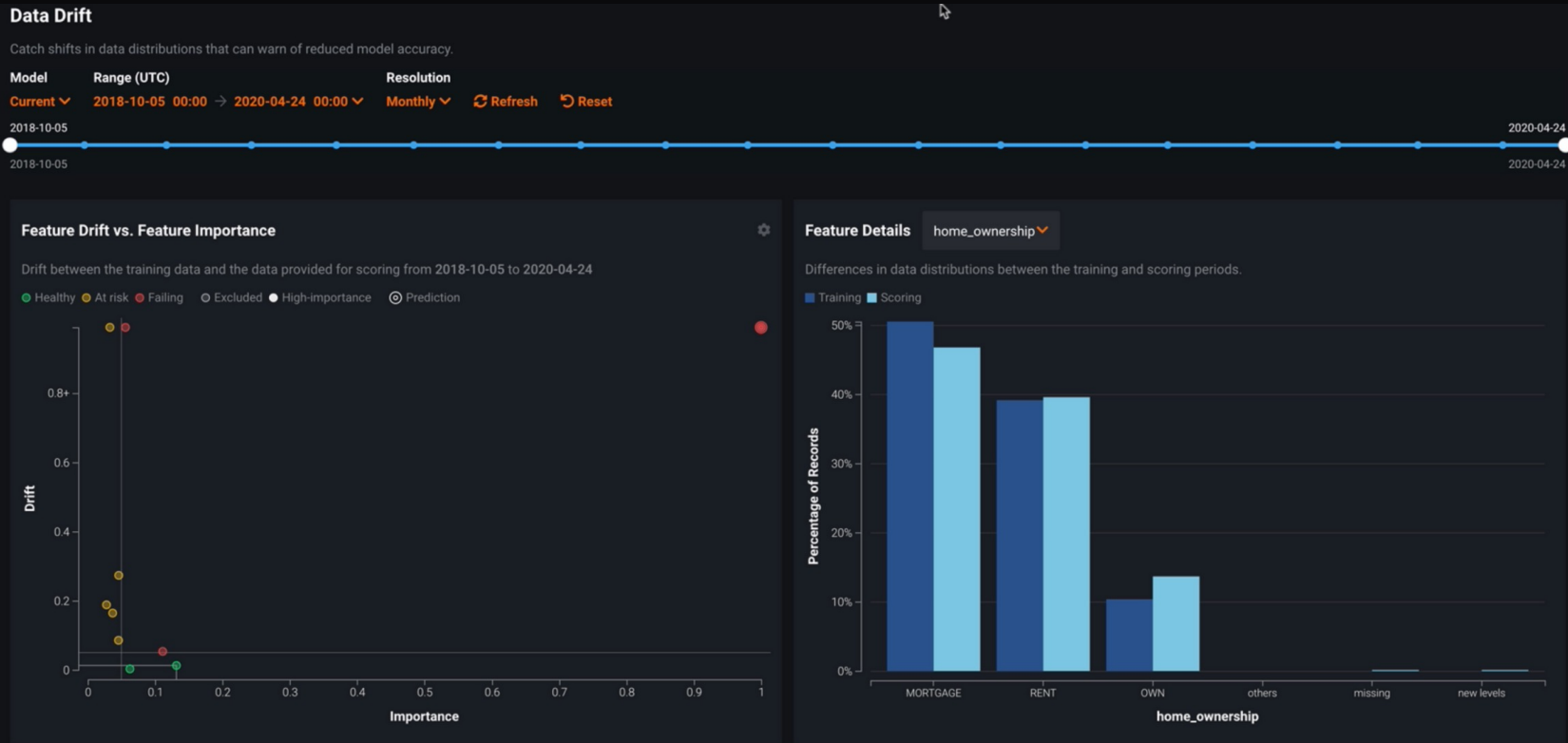
Accuracy over Time



Predicted & Actual



Deployed Models: Data Drift



Automatically detects and processes multi modal data



DataRobot Use Cases AI Catalog Data Models Deployments Model Registry Applications ending club 2012-2013 historic

Repository Leaderboard Insights Learning Curves Speed vs Accuracy Model Comparison

Insight

Word Cloud
Displays the most relevant words and short phrases in word cloud format.

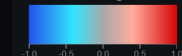
Model

Regularized Logistic Regression (L2)
M59 BP62 | 64% Sample Size | Informative Features

21 models available

USMC

Coefficient: 0.2242



Appears in 15 rows



Filter stop words

Export

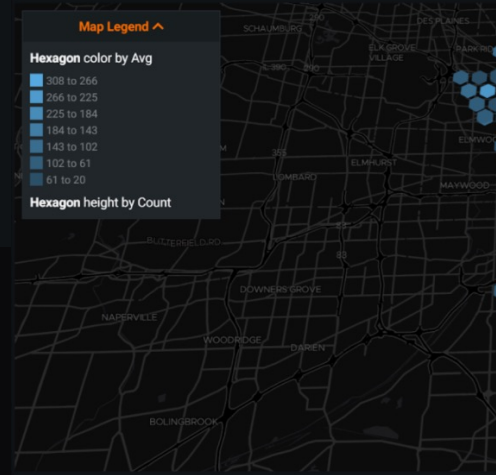
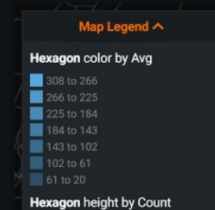
You can drag and zoom in on the chart to get a better look.

DataRobot Use Cases Data Models Deployments Model Registry Insights Repository Applications AI Catalog Ch...e

Menu Search Feature List: All Features View Raw Data

Feature Name Data Quality Index
price (Numeric) 61

Histogram Frequent Values Table Geospatial Map



DataRobot Data Models Deployments Insights Jupyter Repository AI Catalog

Leaderboard Learning Curves Speed vs Accuracy Model Comparison

Menu Search Add New Model Filter Models Export

Model Name & Description

Light Gradient Boosted Trees Regressor with Early Stopping

Ordinal encoding of categorical variables (Missing Values Imputed (Single Column Converter) (SquashNet Image Pretrained Featureizer) Ridge Regressor (Light Gradient Boosted Trees Regressor with Early Stopping)

M64 BP52 64.6% RECOMMENDED FOR DEPLOYMENT

Evaluate Understand Describe Predict Compliance

Feature Impact Feature Effects Prediction Explanations Word Cloud Image Embeddings Activation Maps

Filter by predicted All values Filter by actual All values

Insight is based on 30 images from validation set



Cars (Mileage)

Metric RMSE

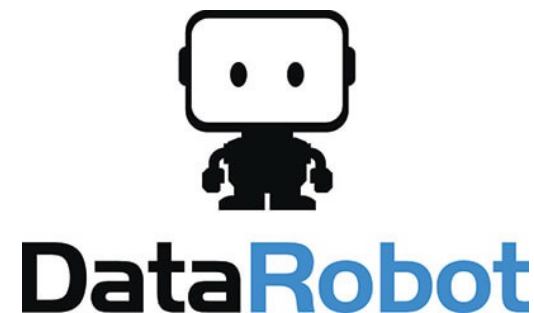
Feature List & Sample Size Validation Cross Validation Holdout

Informative Features 81.0% + 0.0355 * 0.0437 * 0.0388



The next generation of Cloud AI





Please contact Rachel Clinton

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To find out more about how Smart Vision and
DataRobot can help accelerate your
organisation's efforts in Cloud AI



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Thank you