Model Monitoring

Maintain Peak Performance of your Production Models

Overview

Continous drift and accuracy monitoring are the most important tools at your disposal for maintaining highly effective models.

That's why model monitoring is integrated into the Domino Enterprise MLOps platform. With a seamless experience for moving from development to deployment to monitoring, your organization can rapidly iterate and ensure peak performance of models.

Domino streamlines monitoring setup with automated tools for configuration and capturing continuous training and prediction data. Customizable alerts, data quality insights, and reproducible development environments let you quickly diagnose, rebuild and redeploy models.

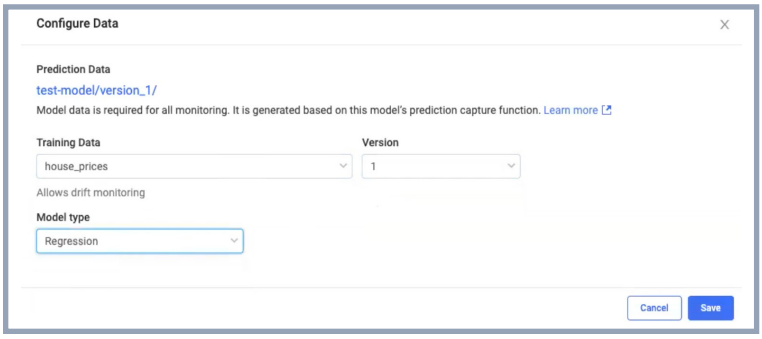
Benefits

- **Respond Immediately:** View all deployed models and their performance characteristics from a centralized dashboard so you can take corrective action.
- **Streamline Processes:** Monitor all models in production with simplified deployment tools, automated prediction data pipelines, and automatic generation of monitoring metrics to ensure all models are operating optimally.
- **Remove Friction:** Quickly move from an alert to a recreated development workspace so your team can rapidly address model performance.
- **Understand Performance:** Rapidly identify the root causes of model quality issues and data drift across hundreds or thousands of features with automated insights.

Model Monitoring Features

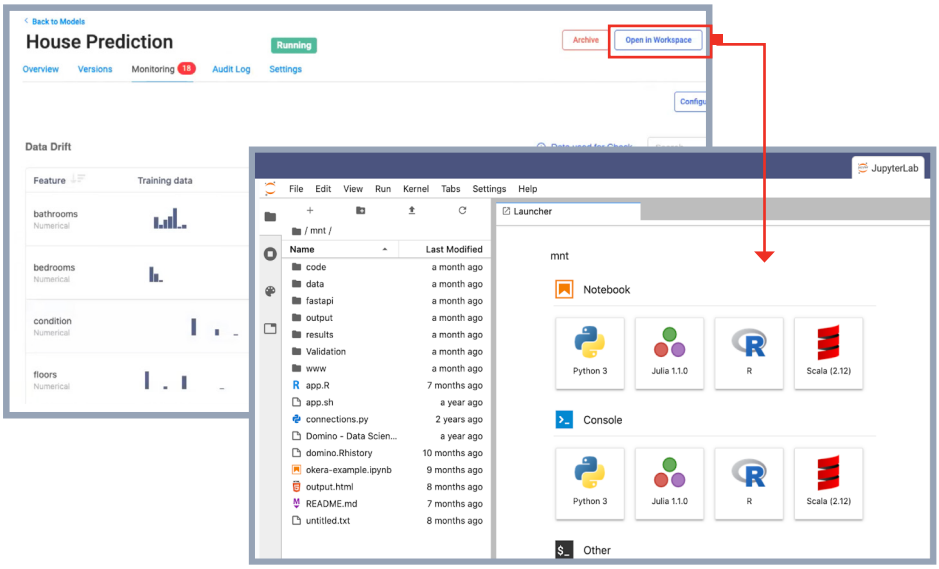
Centralized Visibility

- See performance over time and manage the integrity of your models in production.
- View model status, monitoring summaries, customized alerts, data drift, and model quality from one dashboard.
- Easily drill into model performance for more details.



Simplified Configuration

- Easily configure monitoring and deployment settings.
- Persist features, training data, and predictions for analysis.
- Enable monitoring for all model APIs published and hosted on Domino or Snowflake automatically.
- Register models built in any language or framework (e.g., Python, R, SAS, MATLAB, TensorFlow, DataRobot).

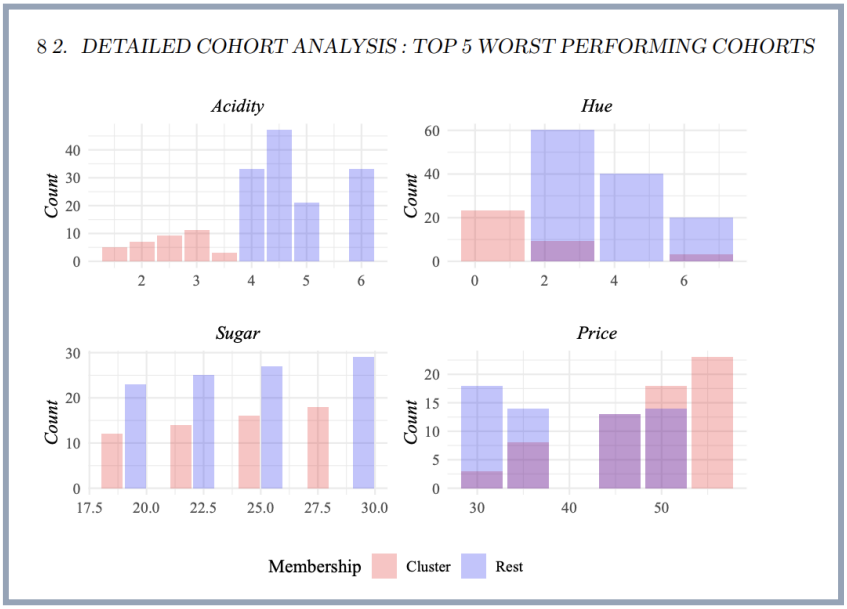


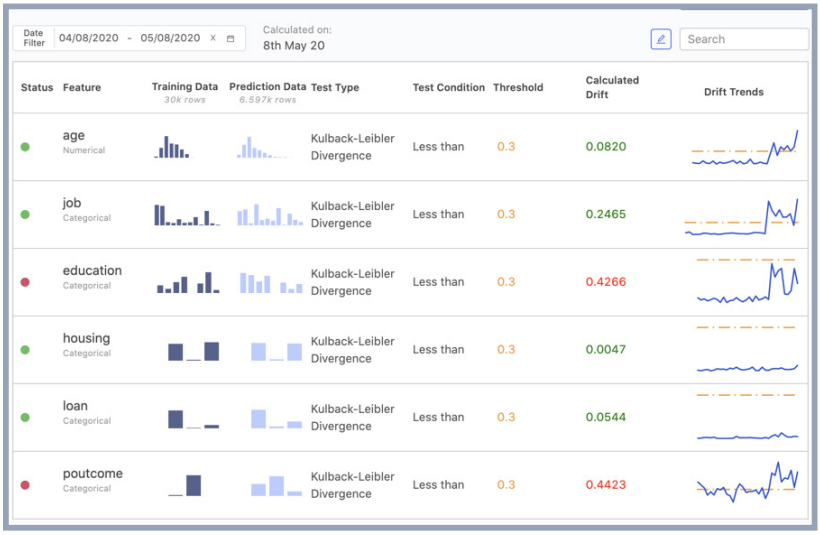
Accelerated Remediation

- Easily reproduce the development environment of production models for remediation.
- With access to production data, easily retrain and validate new model versions.
- Access historical predictions using a Domino Dataset directly from within a workspace to analyze issues surfaced in monitoring.

Automated Insights

- Perform deep, custom analyses of model quality and performance with access to prediction data, analysis code, and cohort analysis reports from within Domino projects.
- Automatically identify how features perform within and outside problem clusters.
- Easily identify segments in the prediction data that contribute to poor model quality via clustering analyses on the model outcomes.





Enterprise Grade

- Scale model monitoring capacity infinitely, with Domino's Elastic Monitoring Engine, to support the most demanding monitoring requirements.
- Ingest and analyze massive volumes of data from Snowflake, Amazon S3 and Hadoop Compatible File Systems (HCFS), which include Azure Blob Store, Azure Data Lake, Google Cloud Storage, and HDFS.
- Automatically set up prediction data pipelines and monitoring for models deployed in Snowflake.