

# Unleash Data Science with Enterprise MLOps



## Challenges

### Why companies struggle to scale data science

**Inflexible Infrastructure:** When data scientists can't access the required tools and scalable compute they need, shadow IT creates operational and security risks. Siloed stacks of data science tools and bespoke hardware slows both data scientists and IT down.

**Wasted Work:** A variety of tooling creates silos for limited collaboration and knowledge sharing. Lack of standardization compromises auditability, reproducibility, and project tracking, ultimately reducing productivity and causing security and governance risk.

**Production Pitfalls:** During model development, tracking and managing experiments and projects is manual across different tools and packages. Deployment into production is also complex, delaying business value and increasing risk with inconsistent model monitoring.



## The Domino Data Lab Solution

### Domino Enterprise MLOps Platform for Code-First Teams

**Data scientists** spend less time on overcoming DevOps challenges, with self-serve access to their preferred languages (including Python, R, SAS, and MATLAB), IDEs, packages, and infrastructure so they can develop and deploy models faster to drive more business impact.

**Data science leaders** give their team an easy way to find, reproduce, and reuse past work so there's less "reinventing the wheel." Knowledge compounds, breakthroughs happen faster, and teams are more productive overall. Standard ways of working help to enforce best practices.

IT securely provides the tools, data sources, and compute resources that data scientists need – now, and in the future. With increased governance over compute spend and an overall reduction in costs of supporting data science infrastructure, IT becomes the hero.

## Benefits

Overcome the biggest challenges to data science at scale – infrastructure friction, productionization challenges, and a lack of collaboration.



### Kubernetes Native, Open & Flexible Deployment

Domino is an AWS Machine Learning Competency Partner, validated since 2017. Domino's Enterprise MLOps Platform runs on Amazon Elastic Kubernetes Service (EKS). Domino is an AWS Advanced Technology Partner, with both ML and Financial Services competencies.



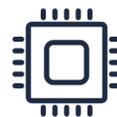
### Collaborative System-of-Record

Manage data science at-scale, allowing teams to find, re-use, reproduce, and build upon past work, streamlining auditing and governance for compliance and regulatory efforts.



### Integrated Model Factory

Remove friction from all phases of the end-to-end data science lifecycle. Rapidly test ideas, select the best models, and deploy them into production to deliver business value.



### Self-Service Infrastructure Portal

Automate time-consuming DevOps tasks required for data science work at scale. Spin up and share environments pre-loaded with preferred tools and hardware optimized *for code-first data science teams*.



Advanced  
Technology  
Partner

Financial Services  
Competency

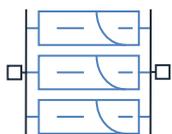
Machine Learning  
Competency

## Domino Data Lab on AWS

*Work faster, deploy results sooner, scale rapidly, and reduce regulatory and operational risk*

Domino provides a central system of record for data science activity across an organization. Domino orchestrates all data science artifacts, including AWS infrastructure, data, and services. Code-first data science teams benefit from a flexible, collaborative, and reproducible research environment, with self-service access to powerful AWS infrastructure within the governance of IT.

## Features



### Orchestrate AWS Infrastructure, Data, and Services for Data Scientists

Domino is an AWS Machine Learning Competency Partner validated since 2017. Their Enterprise MLOps Platform [on Amazon EKS](#) provides ready-to-deploy, field-hardened deployment patterns for ease of use. Featuring pre-built data connectors and integrations supporting [Amazon Simple Storage Service \(S3\)](#), [Amazon Redshift](#), Amazon EMR, and many others, Domino removes common DevOps barriers.

Abstract away the complexity of managing infrastructure and connecting to data sources, so data scientists can focus on innovation. Provide self-serve, easy access to Amazon Elastic Compute Cloud (EC2) machines, including GPUs and powerful servers, to run experiments faster and test more ideas to accelerate model development.



### Collaborative, Flexible Model Development and Deployment for Teams

Domino's collaborative and flexible platform lets data scientists use the tools and packages of their choice, including Amazon SageMaker, Jupyter, RStudio, SAS, Anaconda, MATLAB, along with flexible compute frameworks (i.e., Spark, Ray, and Dask). Code-first data scientists get the benefit of project management and collaborative, reproducible research environments with flexible deployment options – maximizing productivity and business impact by compounding knowledge.

Models developed in Domino can be [exported for deployment in Amazon SageMaker](#), giving customers the choice for AWS' own scalable and low-latency hosting. Models developed in [Amazon SageMaker and Amazon SageMaker Autopilot can be accessed inside Domino](#) to support diverse business and operational requirements, then monitored for drift and prediction performance issues before the prediction loses its accuracy.

## Case Studies



Monitoring use of critical datasets and letting business users access powerful data science models for risk modeling.

[Read Case Study →](#)



Running 10x more experiments on alternative datasets, reducing time to get the best trading strategies into the market.

[Read Case Study →](#)



Moving models into production 6x faster while improving competitiveness and customer value.

[Read Case Study →](#)



Accelerating genetic simulations and collaborating on models for optimizing crop yields.

[Read Case Study →](#)

## Get started with Domino Data Lab solutions on AWS

Visit AWS Marketplace or [dominodatalab.com/aws](https://dominodatalab.com/aws) to purchase or start a Free Trial today.