



aws INNOVATE

AI/ML EDITION

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Run common ML use cases without writing a single line of code using Amazon SageMaker Canvas – **No prior ML experience required**

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Agenda

1. ML is now mainstream - Are you prepared?
2. Current state & issues with ML value creation today
3. Democratizing ML using Amazon SageMaker Canvas
4. Demo
5. How to get started with Amazon SageMaker Canvas
6. Useful resources

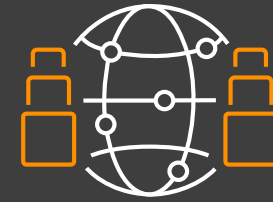
The reach of ML is growing



**INCREASED
SPENDING**



**FROM PILOTING TO
OPERATIONALIZING**



**AI
TRANSFORMATION**

Business impact of machine learning



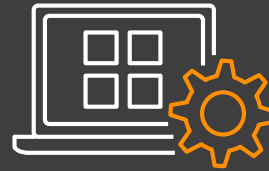
OPTIMIZING BUSINESS WITH NEW EFFICIENCIES

Create greater efficiency through sophisticated demand planning and forecasting models



MAKING SMARTER, FASTER DECISIONS

Make more informed, faster decisions to act on opportunities sooner and get better results



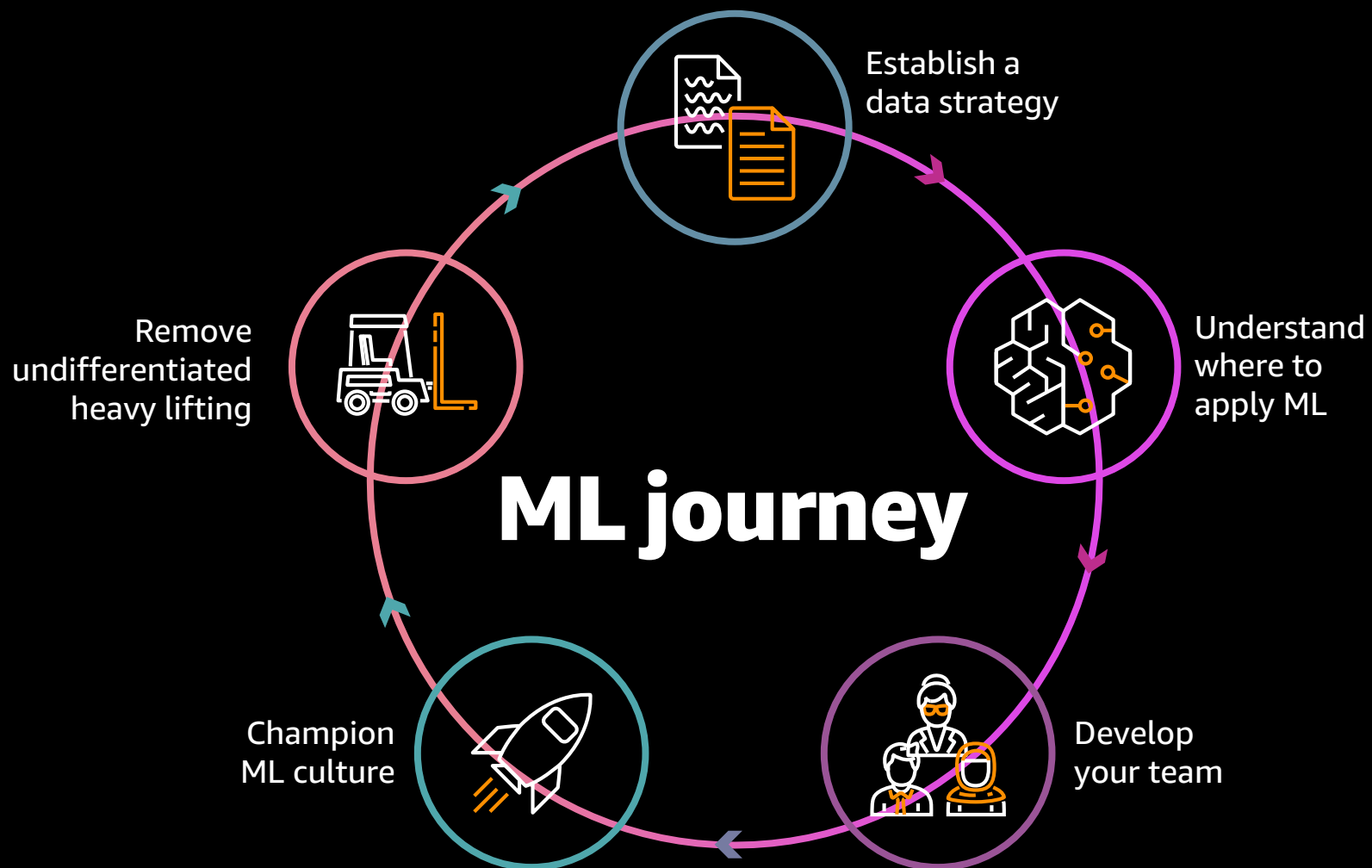
ADDING NEW CAPABILITIES TO EXISTING PRODUCTS

Enrich existing product to improve customer engagement and attract new users through deeper experiences



INVENTING NET-NEW PRODUCTS

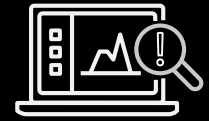
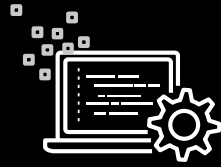
Use data to develop innovative ideas and bring new products to market



How ML Drives value creation today

Inventory Forecasting

Churn Prediction Sales Conversion



Prioritized
Use Cases

**Business
Requirements**

**Data Preparation &
Feature Engineering**

**Model Development,
Training, and Tuning**

**Model Deployment &
Monitoring**

Step

Owner

Business Leads, Domain
Experts, and Business Analysts

Data Engineers and Data
Scientists

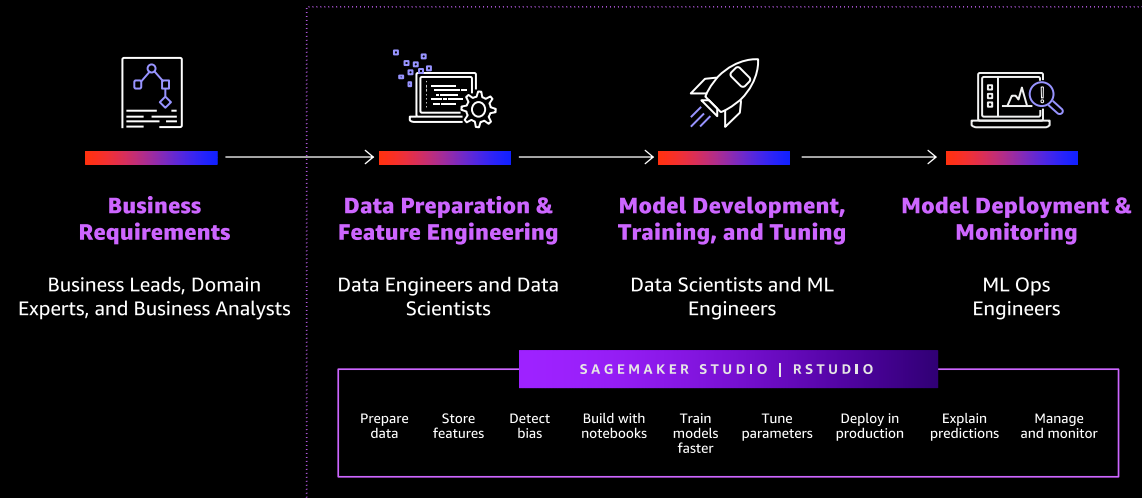
Data Scientists and ML
Engineers

ML
Engineers

Usually takes from weeks to months
primarily solving for the prioritized use cases

How can you scale ML value creation?

- 1 Enhance ML team productivity**
Leverage the most complete, end-to-end ML service and increase productivity by 10x

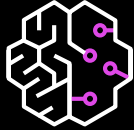


- 2 Expand Your ML development team**
Grow your technical teams in proportion of your needs, but ML talent is in high demand

- 3 Democratize ML innovation**
Enable more groups of people, including business analysts to build ML models

How about helping business analysts make smarter decisions by building and leveraging their own Machine Learning models?

Challenges analysts face in building ML



Analysts lack deep ML expertise, and learning curve is steep

- Need to build understanding for ML concepts across data preparation, model development, and optimization
- Need expertise in choosing the right combination of feature engineering, type of model, and optimization technique
- Learning to write or decipher code is usually needed



Business needs explainability and validation from experts

- Analysts prefer to partner with data scientists in order to learn and build trust in the process, but data scientists' time is limited and typically devoted to a few key ML projects
- Analysts need to be able to explain ML model predictions to business executives



Available no-code ML tools tend to lack transparency and have upfront fees

- Many no-code ML options lack code-level transparency making it difficult to inspect and productionalize models
- The UX for analysts and data scientists tends to be the same, requiring analysts to know the ML concepts and jargon
- Frequently, no-code ML tools come with licensing fees, so experimentation requires upfront investment

Amazon SageMaker Canvas

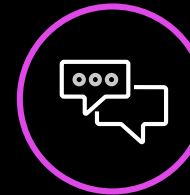
Build ML models and generate accurate predictions—no code required



Quickly access and prepare data for Machine Learning



Built-in AutoML to build models and generate accurate predictions



Share ML models and collaborate with data science teams



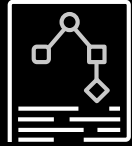
Usage-based pricing to avoid licensing fees and reduce TCO

Demo



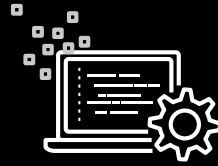
ML value creation from months to hours

WITH A TAILOR-MADE WORKSPACE FOR ANALYSTS AND A TAILOR-MADE WORKSPACE FOR DATA SCIENTISTS



Business Requirements

Business Leads, Domain Experts, and Business Analysts



Data Preparation & Feature Engineering

Data Engineers and Data Scientists



Model Development, Training, and Tuning

Data Scientists and ML Engineers



Model Deployment & Monitoring

ML Ops Engineers

SAGEMAKER CANVAS

No-Code ML



Collaboration

Analyst-focused Workspace

SAGEMAKER STUDIO | RSTUDIO

Prepare data

Store features

Detect bias

Build with notebooks

Train models faster

Tune parameters

Deploy in production

Explain predictions

Manage and monitor

Data Scientist-focused Workspace

Amazon SageMaker Canvas use cases

VAST ARRAY OF USE CASES ACROSS DIFFERENT BUSINESS FUNCTIONS, OR VERTICALS



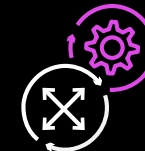
Sales and Marketing

1. Sales conversion
2. Sales forecasting
3. Propensity to churn
4. Customer lifetime value prediction
5. Marketing mix modeling



Finance and Accounting

1. Credit risk scoring
2. Delayed payments prediction
3. Fraud detection
4. Portfolio optimization
5. Account payables automation



Operations and Logistics

1. Demand forecasting
2. Inventory planning and scheduling
3. Delivery time forecasting
4. Predictive Maintenance

and many more...

Some useful resources

1. Tutorial on our YouTube channel - <https://youtu.be/MEbbx1Zs4u8>
2. Getting started - <https://docs.aws.amazon.com/sagemaker/latest/dg/canvas-getting-started.html>
3. Setting up local file uploads - <https://docs.aws.amazon.com/sagemaker/latest/dg/canvas-set-up-local-upload.html>
4. Setting up timeseries forecast in Amazon SageMaker Canvas - <https://docs.aws.amazon.com/sagemaker/latest/dg/canvas-time-series.html>

Visit the AI & Machine Learning resource hub for more resources

Dive deeper into these resources, get inspired and learn how you can use AI and machine learning to accelerate your business outcomes.

- The machine learning journey e-book
- 7 leading machine learning use cases e-book
- A strategic playbook for data, analytics, and machine learning e-book
- Accelerate machine learning innovation with the right cloud services & infrastructure e-book
- Choosing the right compute infrastructure for machine learning e-book
- Improving service and reducing costs in contact centers e-book
- Why ML is essential in your fight against online fraud e-book
- ... and more!



<https://bit.ly/3mwi59V>

Visit resource hub

AWS Machine Learning (ML) Training and Certification



AWS is how you build machine learning skills

Courses built on the curriculum leveraged by Amazon's own teams. Learn from the experts at AWS.

aws.training/machinelearning



Flexibility to learn your way

Learn online with on-demand digital courses or live with virtual instructor-led training, plus hands-on labs and opportunities for practical application.

explore.skillbuilder.aws/learn



Validate your expertise

Demonstrate expertise in building, training, tuning, and deploying machine learning models with an industry-recognized credential.

aws.amazon.com/certification

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Thank you!

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