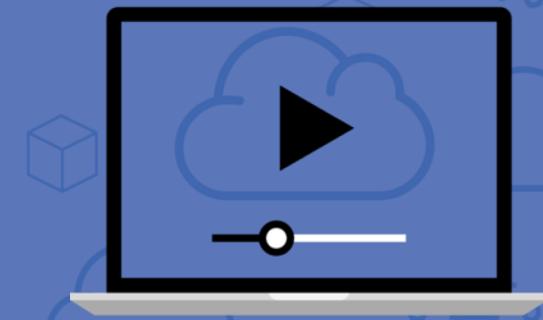




Amazon SageMaker



AWS ML Stack

Application Services

API-driven services: Vision & Language Services, Conversational Chatbots

Platform Services

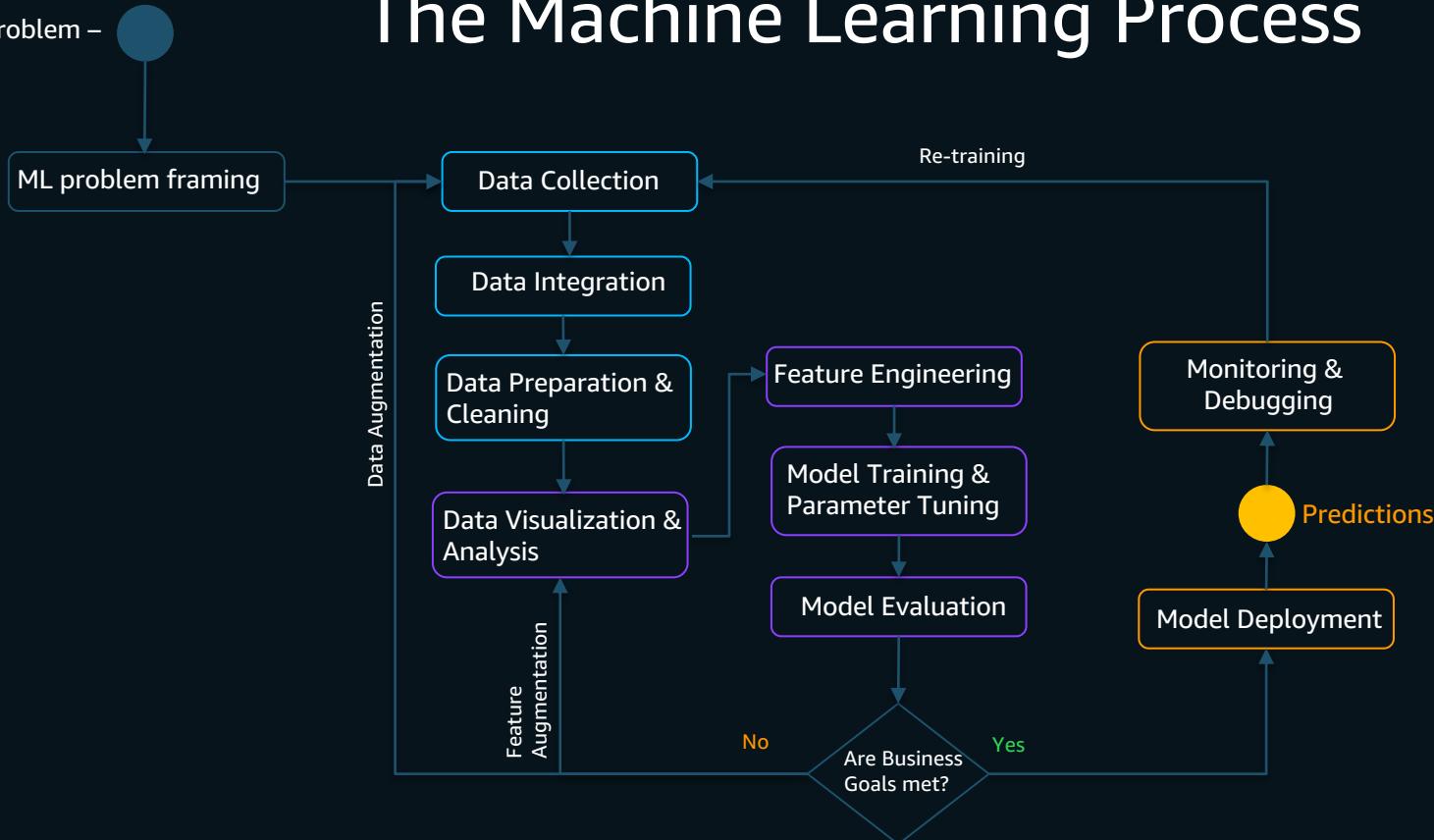
Deploy machine learning models with high-performance machine learning algorithms, broad framework support, and one-click training, tuning, and inference.

Frameworks & Infrastructure

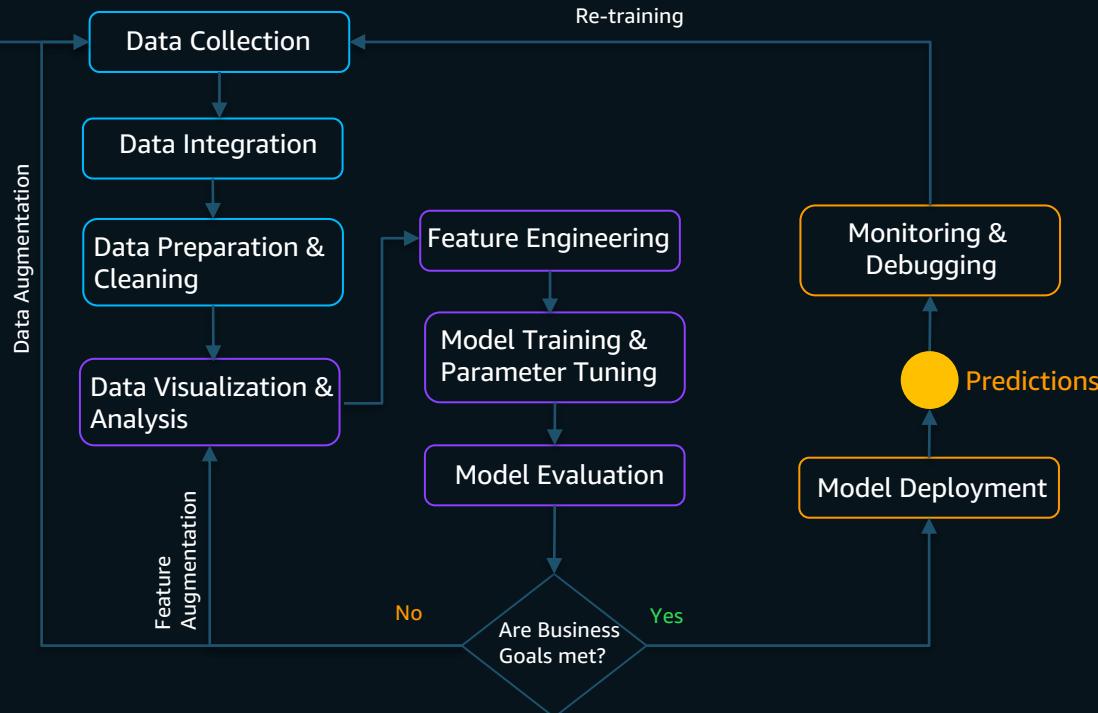
Develop sophisticated models with any framework, create managed, auto-scaling clusters of GPUs for large scale training, or run inference on trained models.



The Machine Learning Process

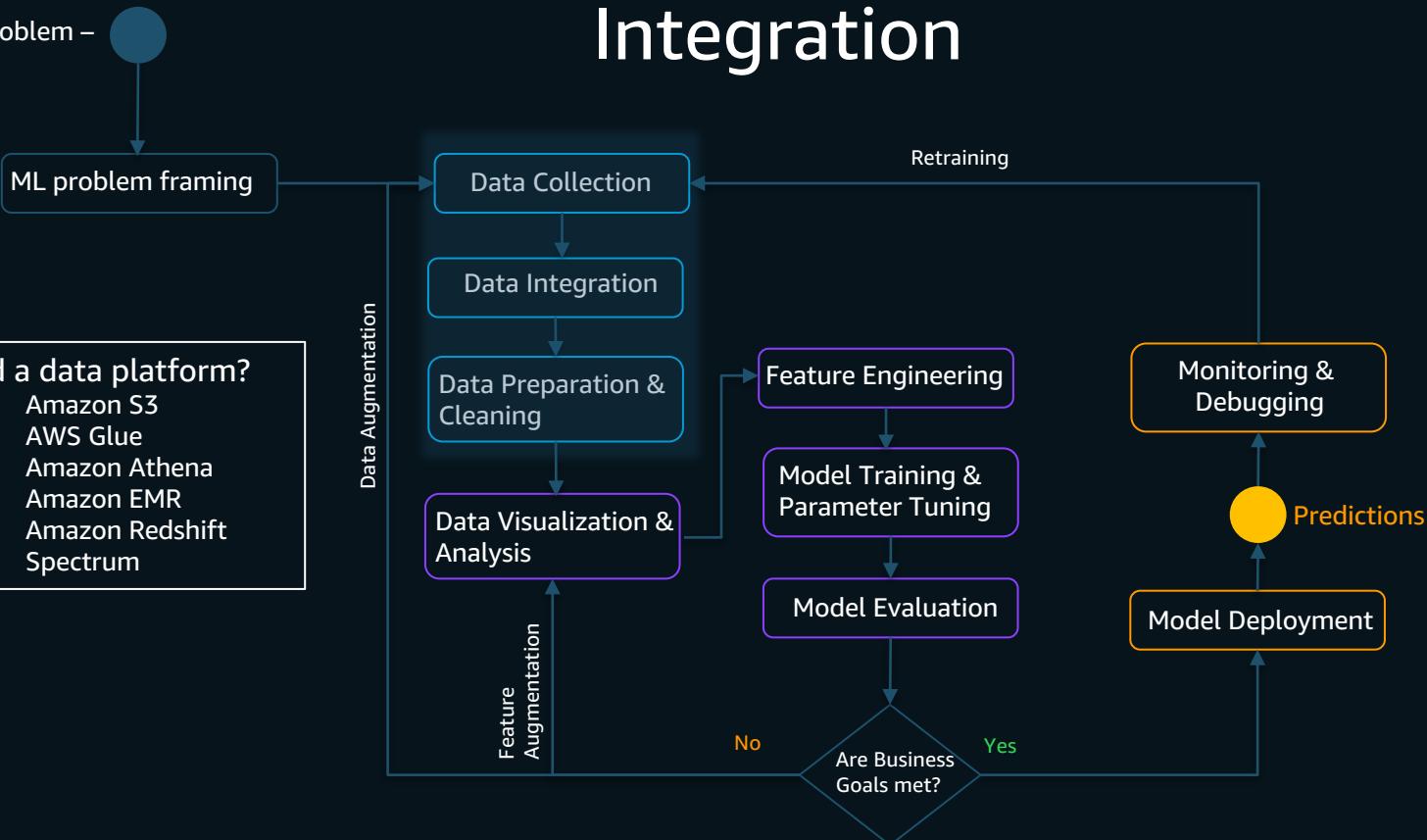


Problem discovery

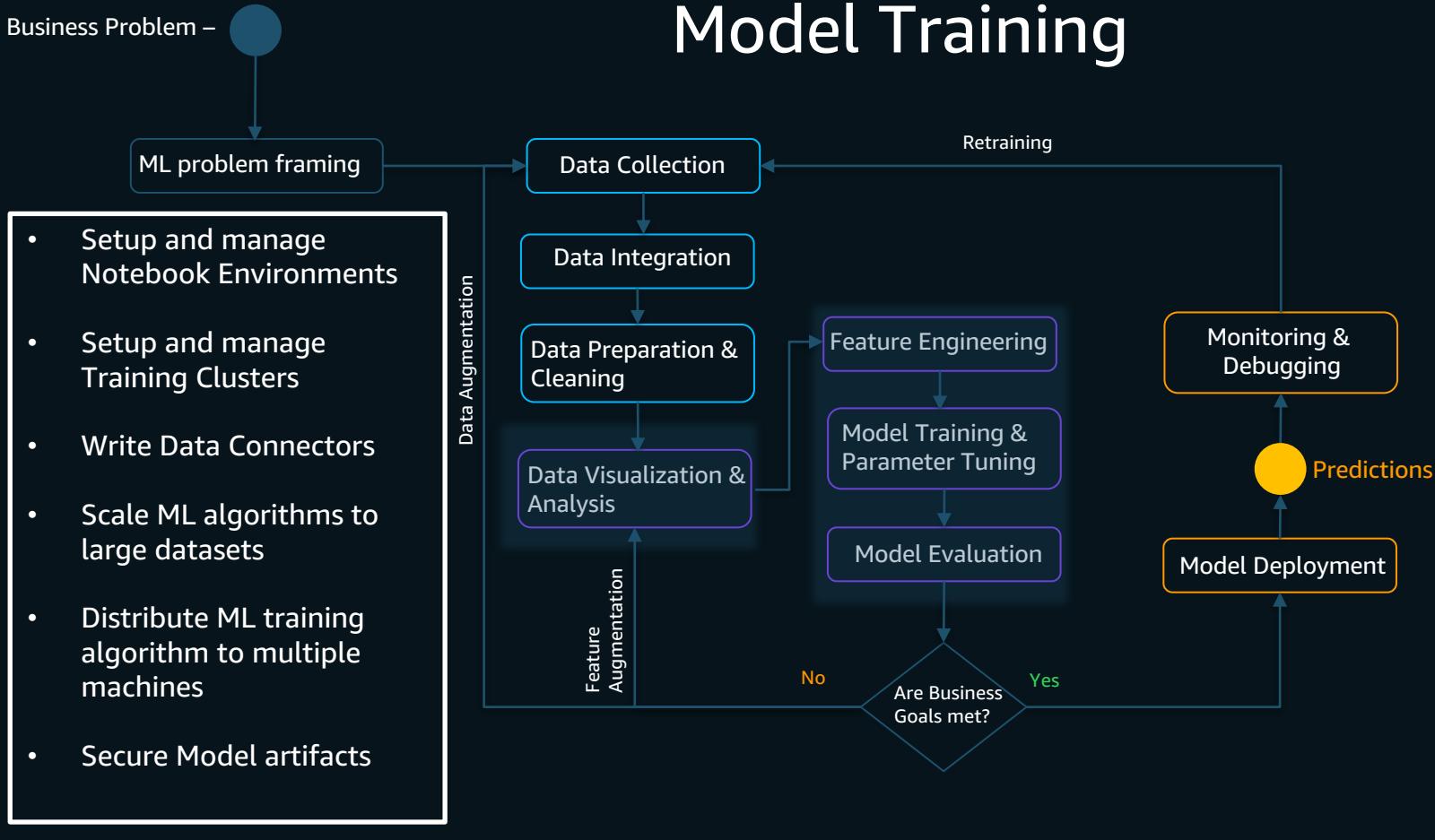


Business Problem –

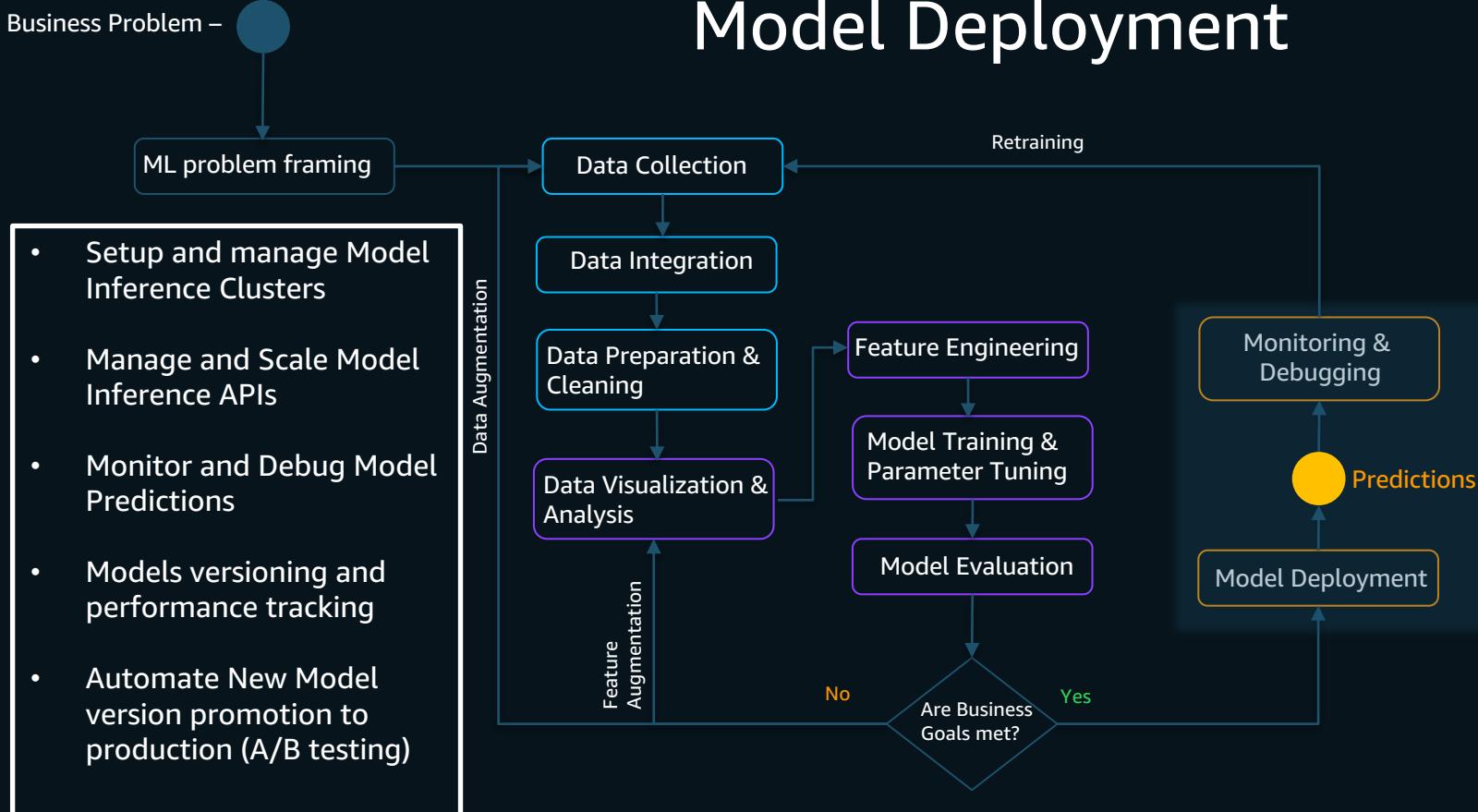
Integration



Model Training



Model Deployment

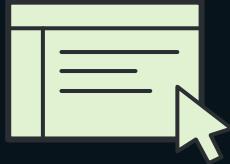


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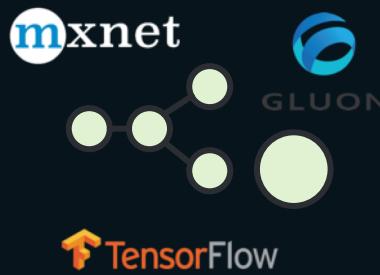
Build, train, and deploy machine learning models at scale



End-to-End
Machine Learning
Platform



Zero setup



Flexible Model
Training



Pay by the second

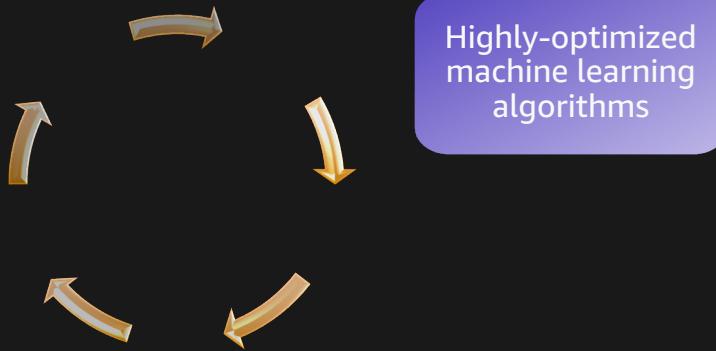


Amazon SageMaker

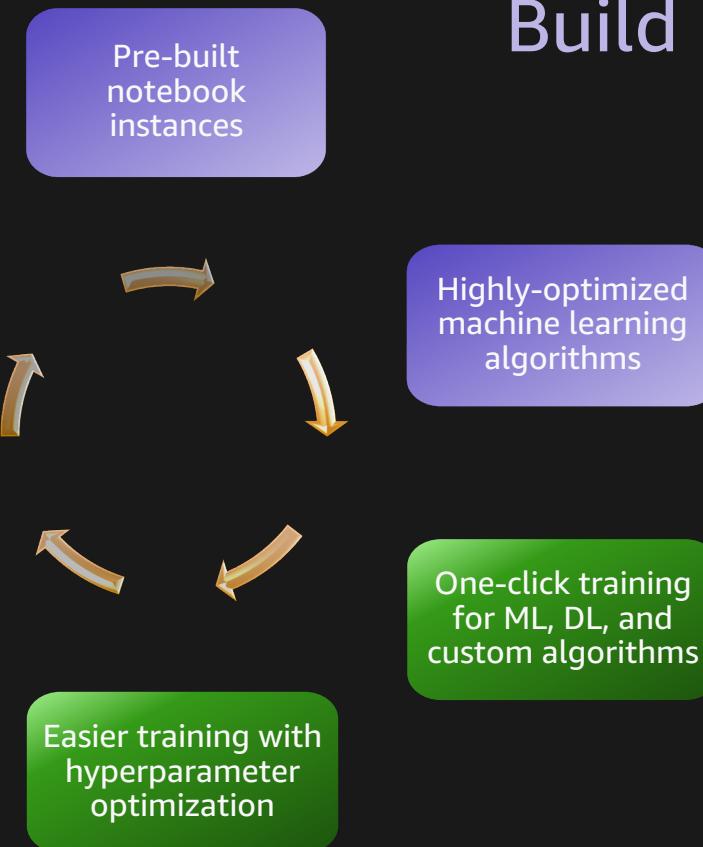
Build

Pre-built
notebook
instances

Highly-optimized
machine learning
algorithms



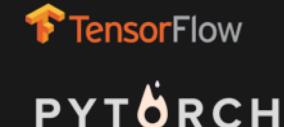
Amazon SageMaker



Build



Train



Amazon SageMaker

Deploy

Fully-managed hosting at scale

Deployment without engineering effort

Easier training with hyperparameter optimization

Pre-built notebook instances

Build

Highly-optimized machine learning algorithms

One-click training for ML, DL, and custom algorithms

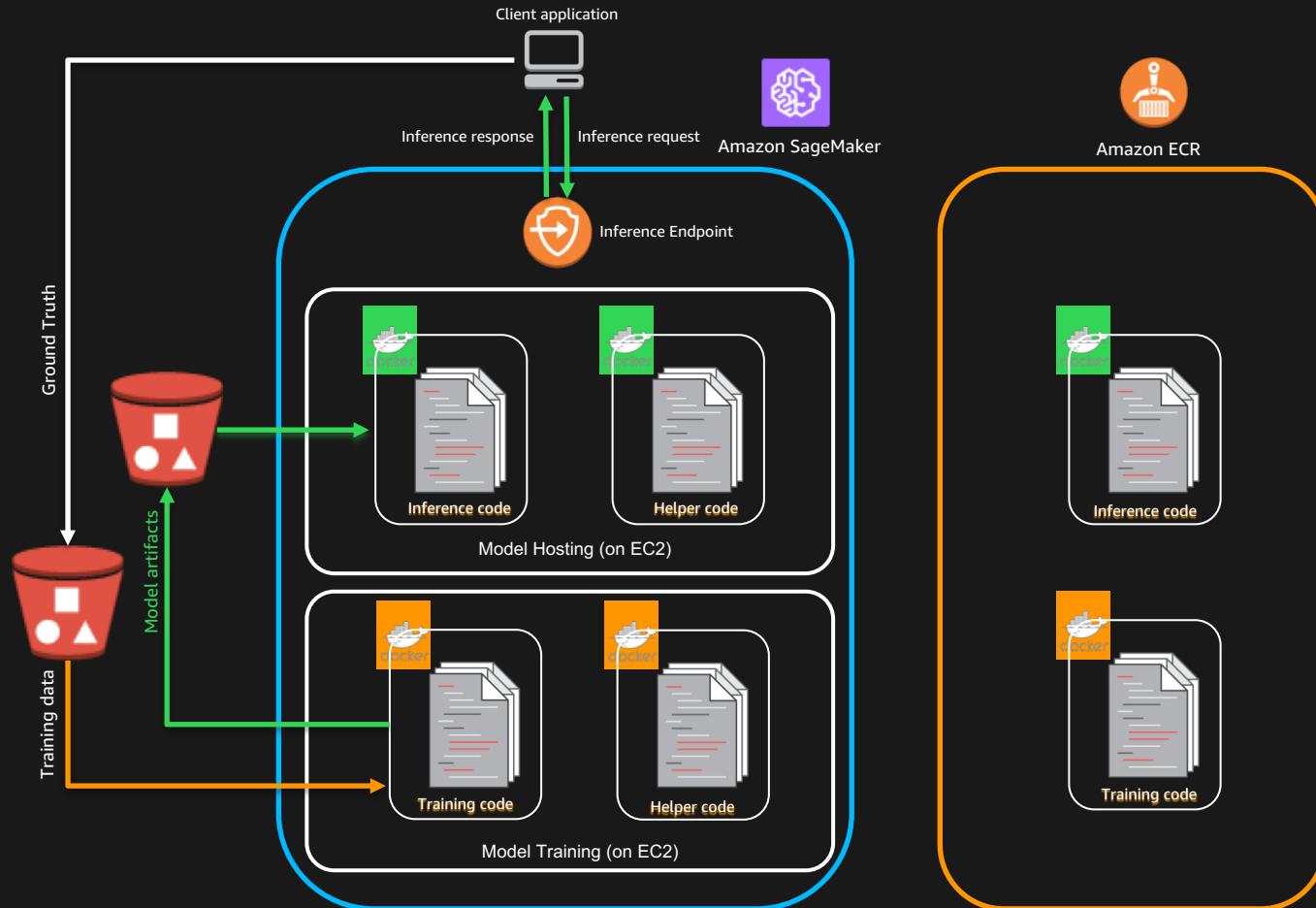


Train

TensorFlow

PYTORCH

aws



Digital Globe

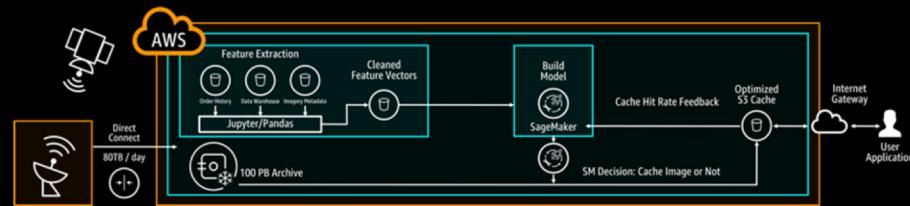


In the last 18 years DigitalGlobe has been operating Earth imaging satellites, they have collected over 100 PB of imagery.

There is a trade-off between how quickly data can be accessed and how much it will cost to store.

Working with the ML Lab, Digital Globe built a predictive model that will reduce cloud storage costs for their imagery archive by 50%.

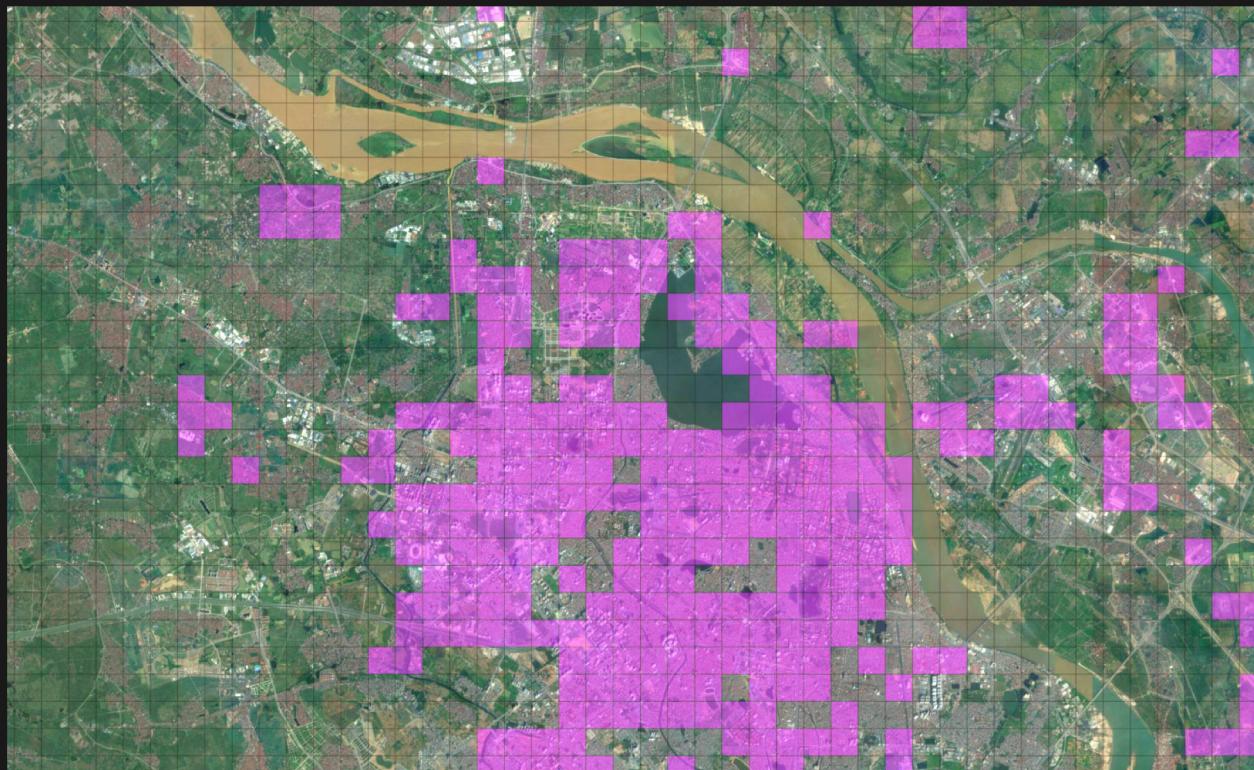
USING AMAZON SAGEMAKER TO CUT CLOUD STORAGE COSTS IN HALF



<http://blog.digitalglobe.com/industry/using-machine-learning-to-save-money-on-cloud-data-storage/>

<https://www.youtube.com/watch?v=mkKkSRlxU8M>

Detecting buildings in Vietnam



<https://developmentseed.org/blog/2018/01/19/sagemaker-label-maker-case/>

Demos

1. Use a built-in algorithm:
fine-tuning a pre-trained image classification model

2. Bring your own training code:
distributed training from scratch with MXNet and Gluon

3. Bring your own pre-trained model:
classifying the Iris data set with a pre-trained TensorFlow model

4. Bring your own container:
classifying the Iris data set with Decisions Trees in scikit-learn

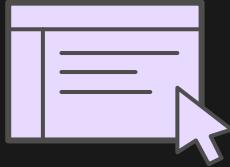


Amazon SageMaker

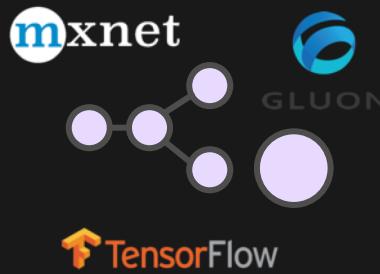
Build, train, and deploy machine learning models at scale



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Pay by the second

Resources

<https://aws.amazon.com/machine-learning>

<https://aws.amazon.com/blogs/ai>

<https://aws.amazon.com/sagemaker>

An overview of Amazon SageMaker

<https://www.youtube.com/watch?v=ym7NEYEx9x4>

<https://medium.com/@julsimon>



Thank you!

