

# Amazon SageMaker Studio Deep Dive

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# The machine learning workflow is iterative and complex

## Prepare



```
101011010
010101010
000011110
```

Collect and prepare training data

## Build



Choose or build an ML algorithm

## Train & Tune



Set up and manage environments for training



Train, debug, and tune models

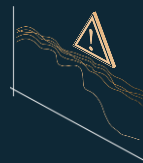


Manage training runs

## Deploy & Manage



Deploy model in production



Monitor models



Validate predictions



Scale and manage the production environment

# Amazon SageMaker helps you build, train, and deploy models

Prepare

Build

Train & Tune

Deploy & Manage

Web-based IDE for machine learning

Automatically build and train models

Fully managed data processing jobs and data labeling workflows

```
101011010
010101010
000011110
```

Collect and prepare training data

One-click collaborative notebooks and built-in, high performance algorithms and models



Choose or build an ML algorithm

One-click training



Set up and manage environments for training

Debugging and optimization



Train, debug, and tune models

Visually track and compare experiments



Manage training runs

One-click deployment and autoscaling



Deploy model in production

Automatically spot concept drift



Monitor models

Add human review of predictions



Validate predictions

Fully managed with auto-scaling for 75% less



Scale and manage the production environment

Modular service and APIs, from experimentation to production

# Amazon SageMaker Studio (preview)

Fully integrated development environment (IDE) for machine learning



Collaboration at  
scale

Share notebooks  
without tracking code  
dependencies



Easy experiment  
management

Organize, track, and compare  
thousands of experiments



Automatic model  
generation

Get accurate models with full  
visibility & control without  
writing code



Higher quality ML  
models

Automatically debug errors,  
monitor models, & maintain  
high quality



Increased  
productivity

Code, build, train, deploy, &  
monitor in a unified visual  
interface

# Demo



# Getting started

<http://aws.amazon.com/free>

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

<https://github.com/aws/sagemaker-python-sdk>

<https://github.com/aws-labs/amazon-sagemaker-examples>

<https://youtube.com/juliensimonfr>

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