



AWS
re:Invent

AIM214-R and AIM214-R1

Introducing Amazon SageMaker Studio

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Speaker Name

Job Title
Company Name

Agenda

Why Machine Learning is Hard

Amazon SageMaker Makes ML Easy

Introducing Amazon SageMaker Studio

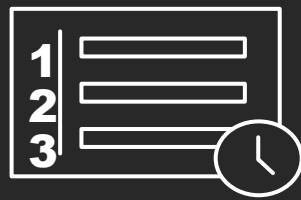
Demo

How GE Healthcare Leverages Amazon SageMaker Studio

Machine Learning is Hard



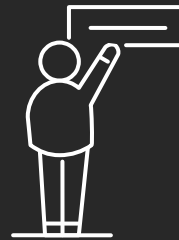
Collect and prepare
training data



Choose and
optimize your
ML algorithm



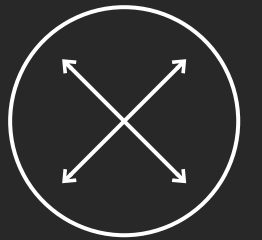
Set up and
manage
environments
for training



Train and
Tune ML Models



Deploy models
in production



Scale and manage
the production
environment

Amazon SageMaker Makes ML Easy

Build

Fast, accurate labelling
Fully managed Notebooks

Collect and prepare
training data

Choose and optimize
algorithm

Train

One-click Training
Automatic Model Tuning

Manage training
environments

Train and tune ML
models

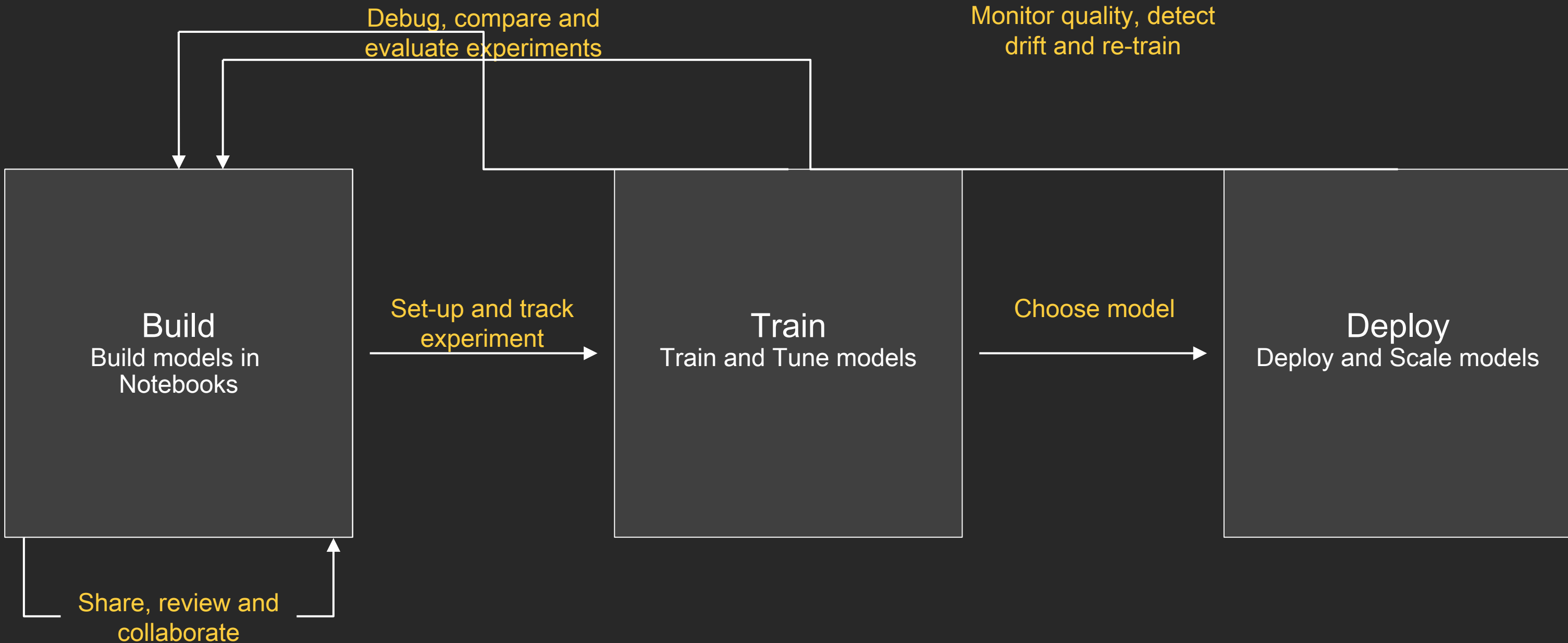
Deploy

One-click Deployment
Fully managed Auto-Scaling

Deploy models in
production

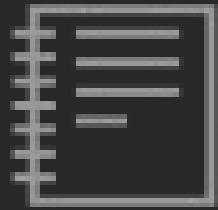
Scale production
environment

Machine Learning is Iterative



Introducing Amazon SageMaker Studio

Introducing Amazon SageMaker Studio



Enhanced Notebooks

Quick start collaborative notebooks



Experiment Management

Organize, track and compare ML experiments



Intelligent Insights

Built-in debugging and monitoring



SageMaker Autopilot

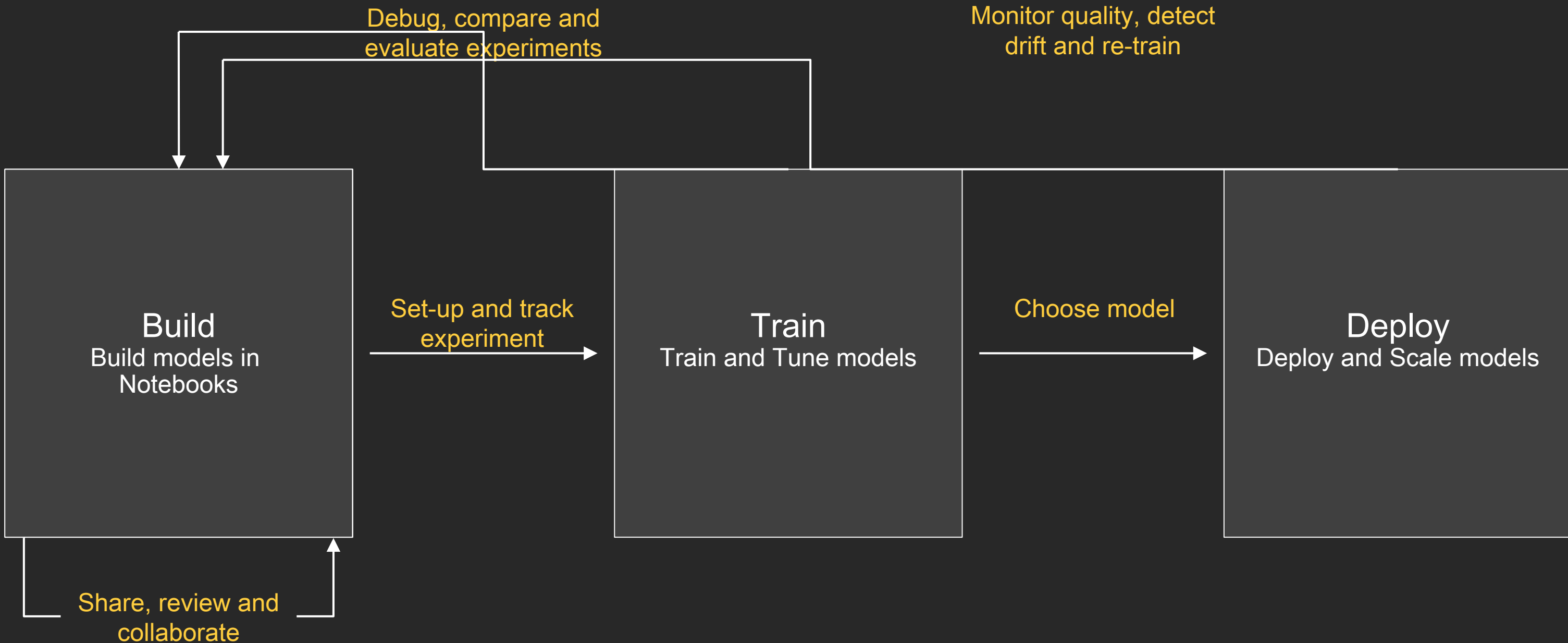
Get from data to models automatically



Productivity Boost

Code + Visualize in a single, unified interface

Build Fast and Collaborate

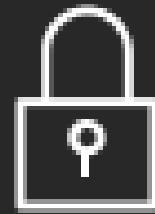


Quick Start Collaborative Notebooks



Single Sign-On

Integrated with AWS SSO



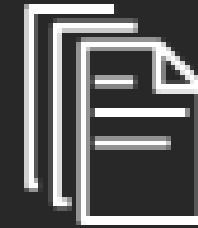
Secure

Administrators govern access and permissions



One-click Share

Share URL with a single click



Reproducibility

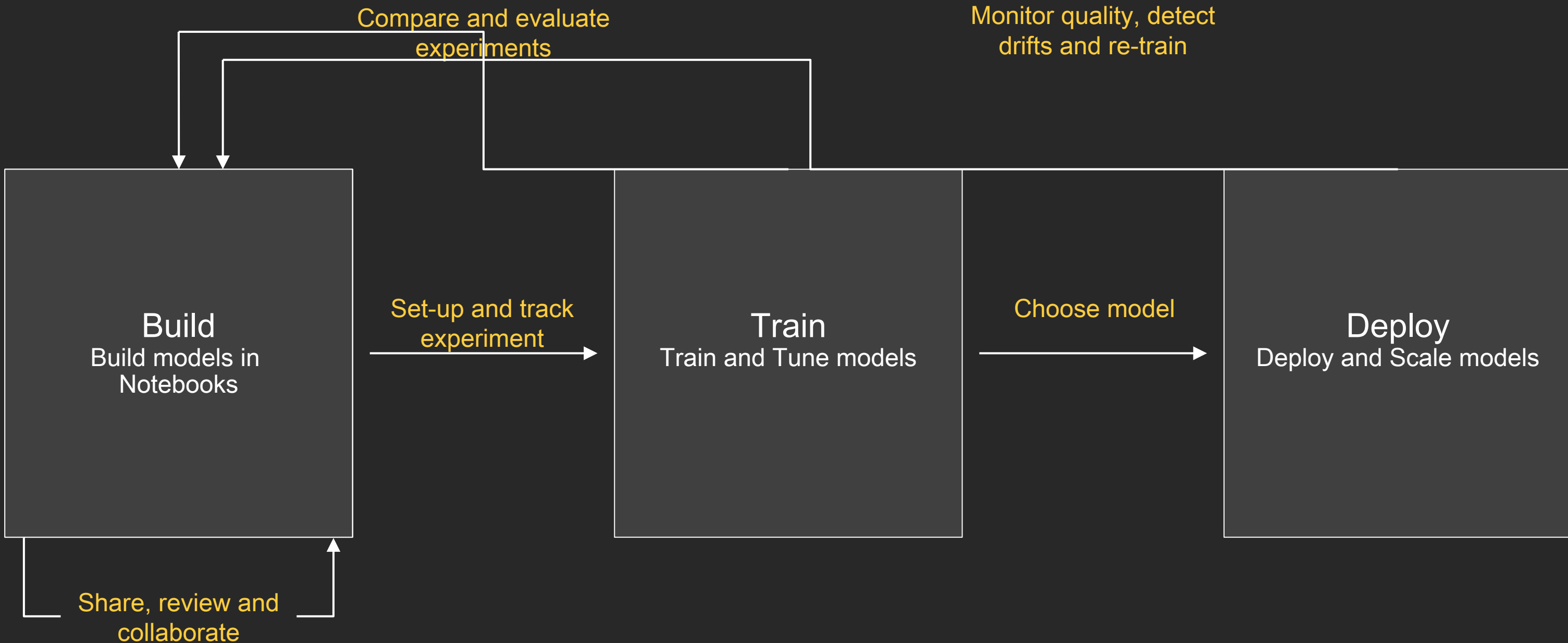
Easily reproduce and review notebooks



Pay as you go

Fully managed compute. Pay only what you use

Manage Experiments

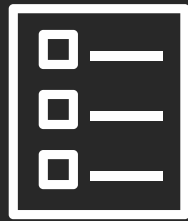


Amazon SageMaker Experiments



Track experiments

Track parameters, metrics,
models and more



Organize

Organize your experiments
and trials



Compare
experiments

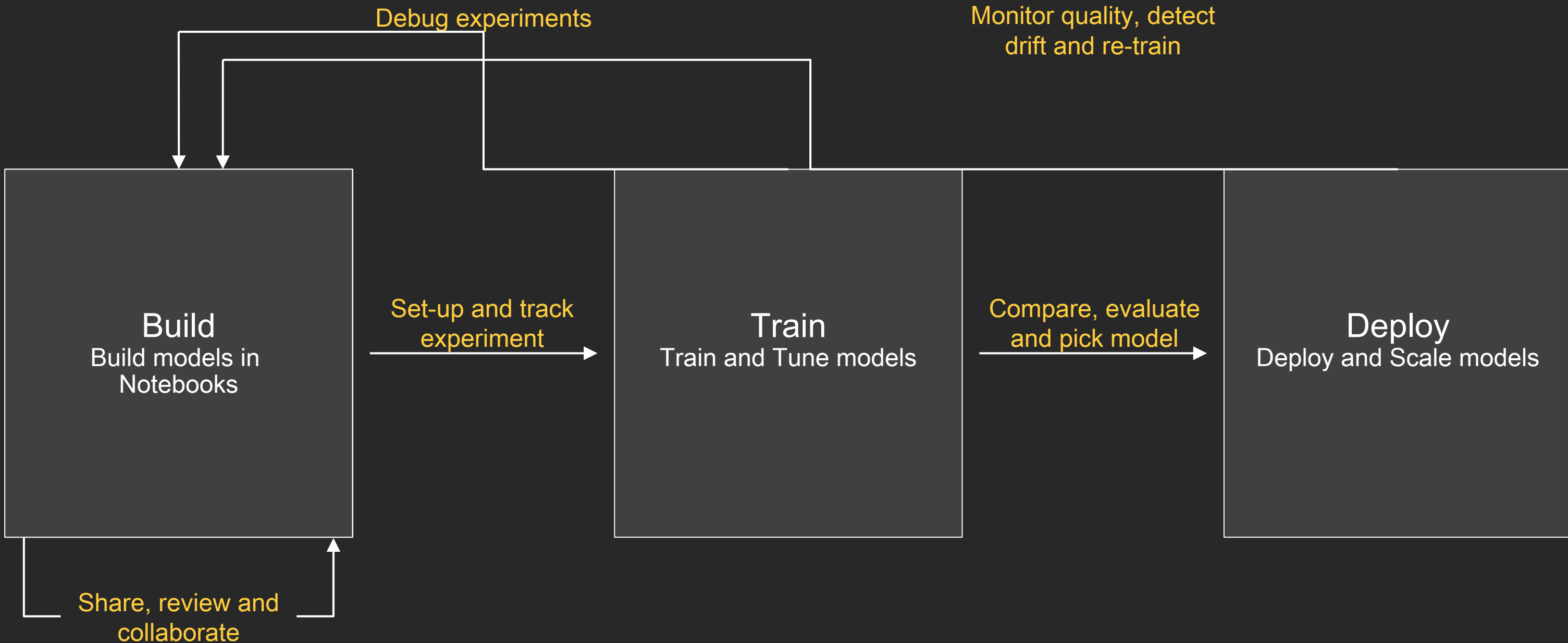
Compare, evaluate and
iterate



Python SDK

Tracking and analytics APIs

Debug Training Runs



Amazon SageMaker Debugger



Framework support

TensorFlow, Apache MXNet, PyTorch, XGBoost



Introspect models

Introspects, collects and analyzes debug data



Rules and Alerts

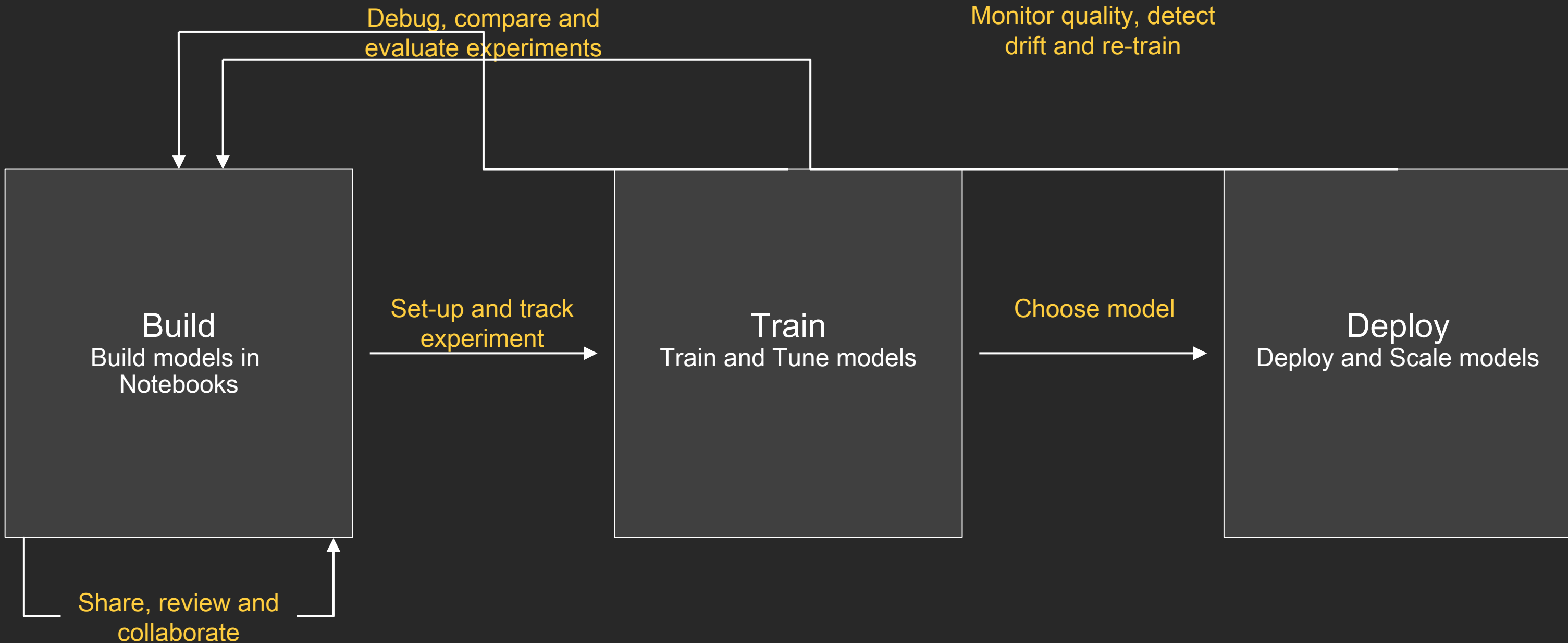
Alerts when bottleneck is identified



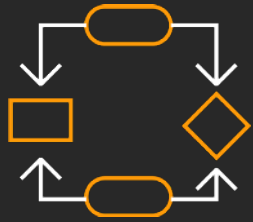
Python SDK

Write your own debug rules

Monitor Models

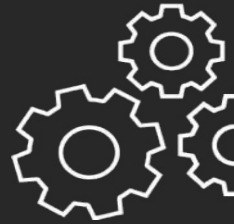


Amazon SageMaker Model Monitor



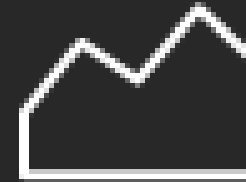
Collect data

Periodically collects data
from endpoints into S3



Analyze

Computes feature statistics



Monitor

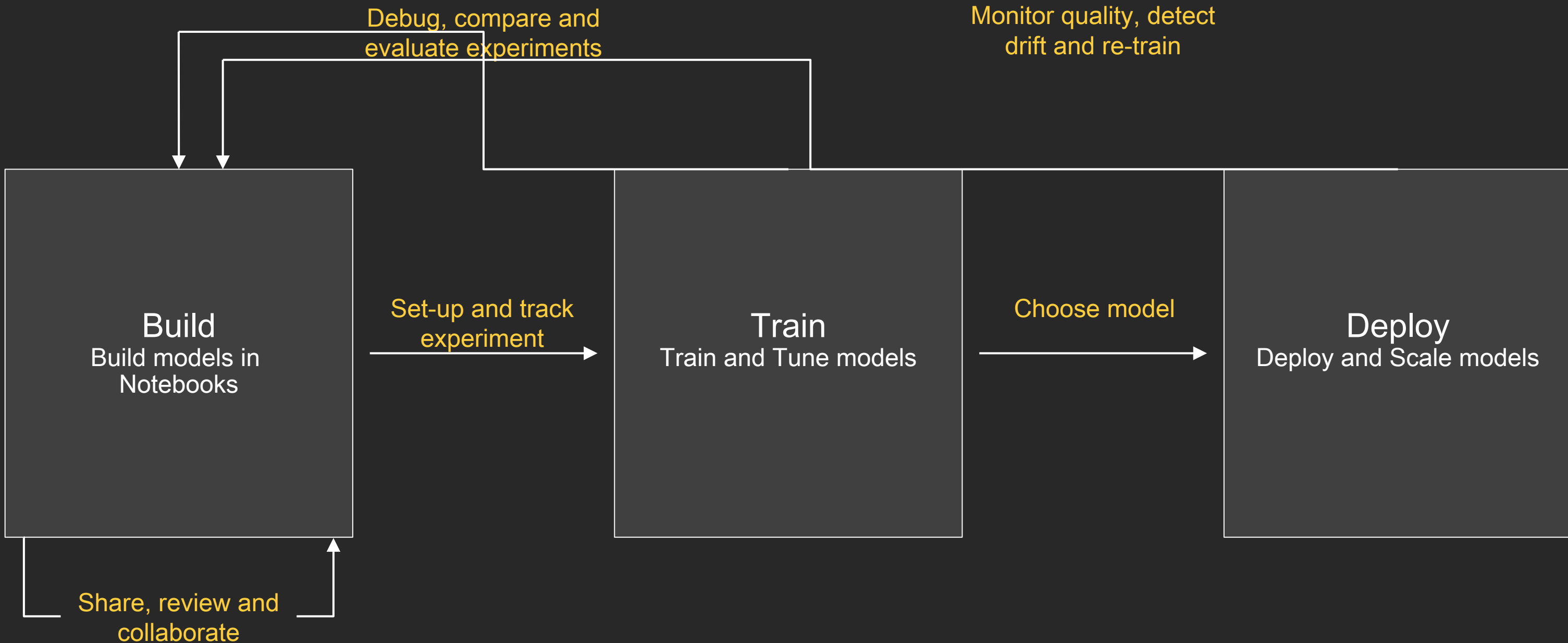
Monitors trends in data and
detects drifts



Alerts

Alerts on CloudWatch and
Rhinestone

How else can we accelerate ML workflow?



Amazon SageMaker Autopilot



Provide data

Data in tabular form



Specify column to
predict

Support for Regression and
Classification



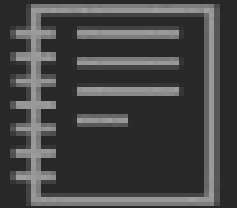
Create Model

Feature generation,
algorithm selection and
parameter tuning



Track Experiment

Automatically tracked as an
experiment



Transparent

Get notebook with source
code

Demo

Link to 90 min step-by-step UX walkthrough of SageMaker Studio

<https://amazon.awsapps.com/workdocs/index.html#/document/43e6243181eb5d0eb5687c1d49ce7657adc147d8bdec1734401abf9b8c6ff182>