



AI & Machine Learning

Spin up Jupyter Notebooks at scale
and increase your productivity

Aaron Sengstacken

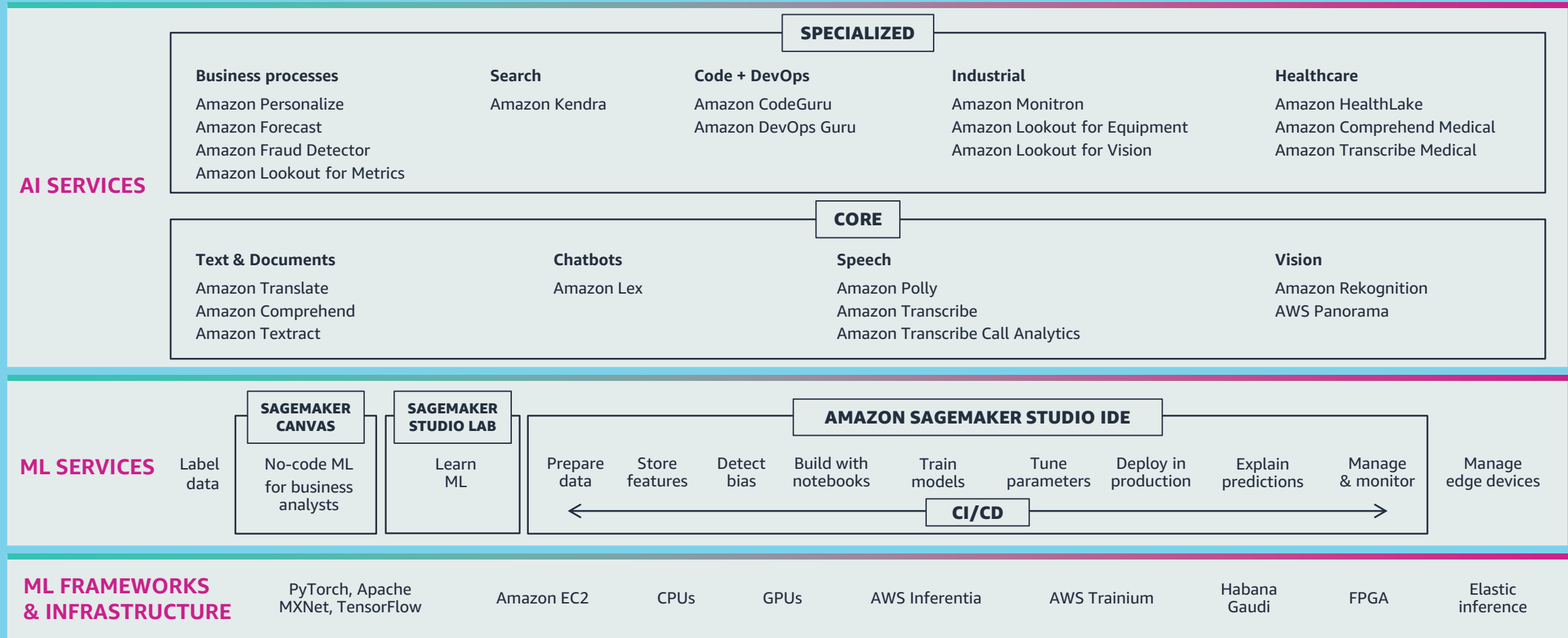
Senior Machine Learning Specialist SA

Outline

- Machine Learning on AWS
- Amazon SageMaker Overview
- Amazon SageMaker Studio Onboarding
- Demonstration
- Getting Started

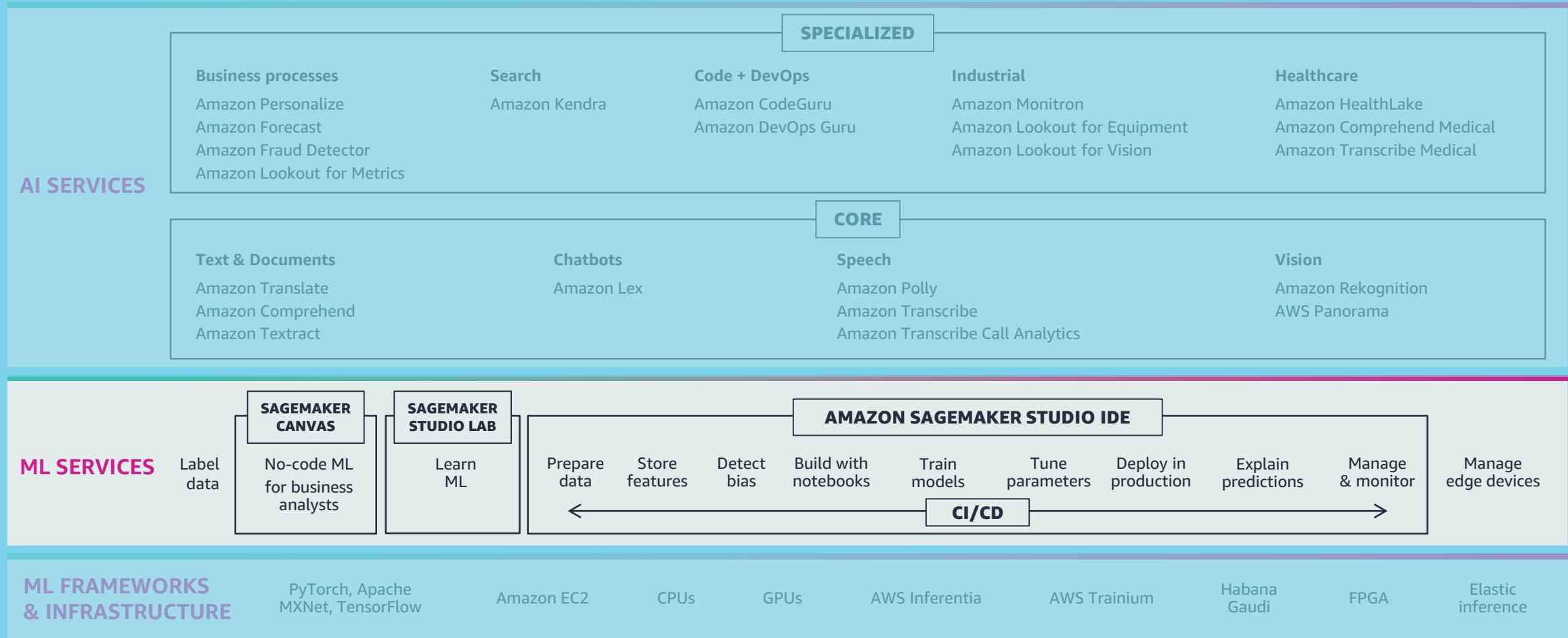
The AWS ML stack

Broadest and most complete set of machine learning capabilities



The AWS ML stack

Broadest and most complete set of machine learning capabilities



INTEGRATED WORKBENCH

IDE designed specifically for ML, data preparation, experiment management, and pipelines

MANAGED INFRASTRUCTURE

Designed for ultralow latency and high throughput, automatic scaling, and distributed training

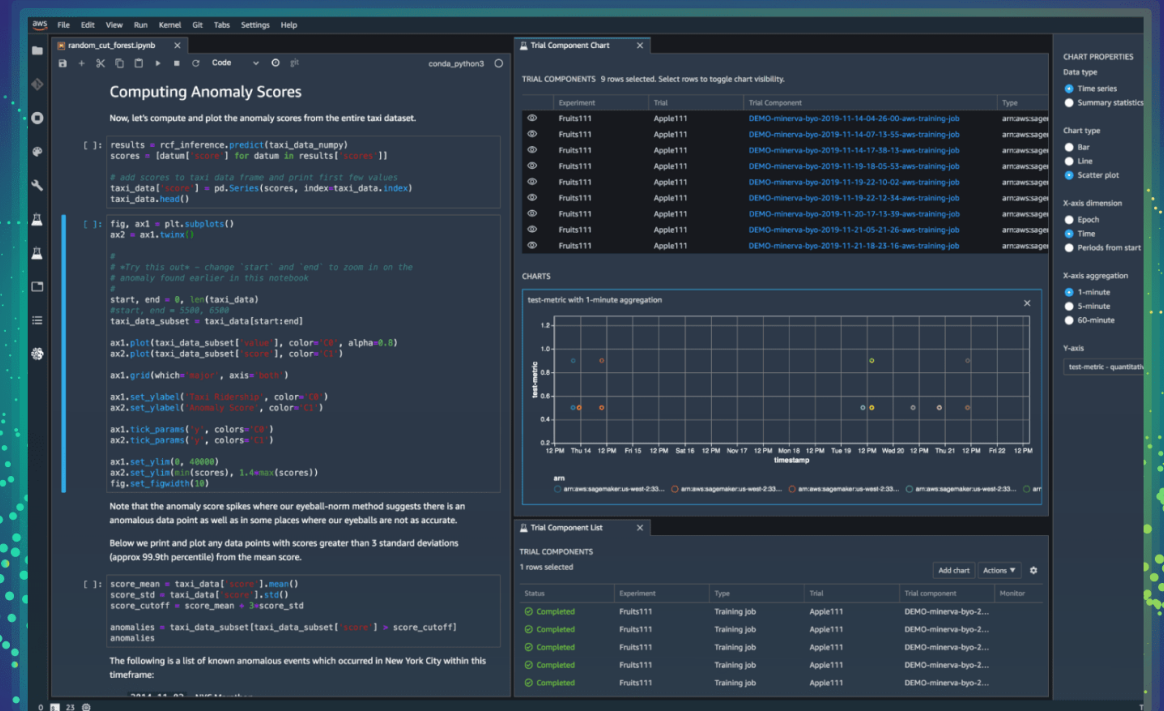
MANAGED TOOLING

Purpose-built from the ground up to work together: SageMaker Autopilot, collaboration, Jupyter notebooks, Experiments, Debugger, Model Monitor, and more

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

Amazon SageMaker

Most complete
end-to-end ML service



Amazon SageMaker Notebooks

Fast-start sharable notebooks



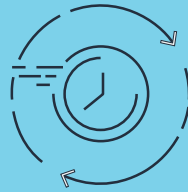
Easy access with Single Sign-On (SSO)

Access your notebooks
in seconds



Fully managed and secure

Administrators
manage access and
permissions



Fast setup

Start your notebooks
without spinning up
compute resources



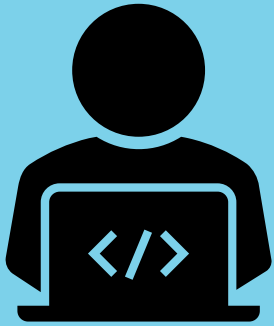
Easy collaboration

Share notebooks
with a single click

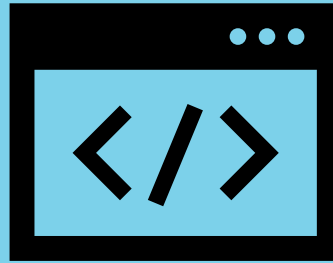


Flexible

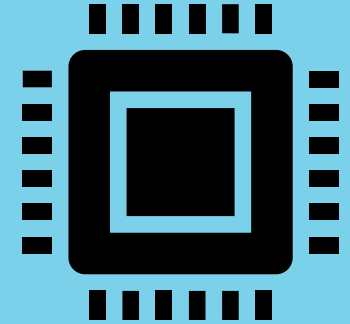
Dial up or down
compute resources



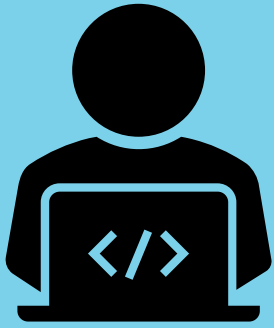
User



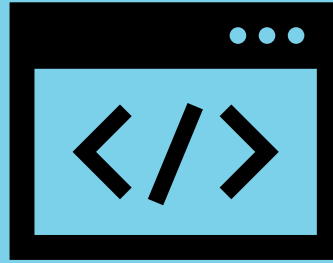
Domain



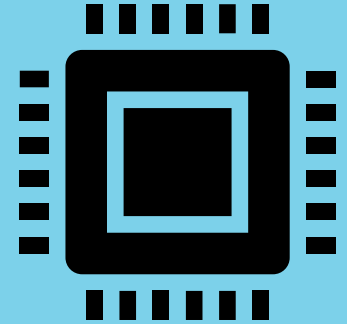
Compute



User

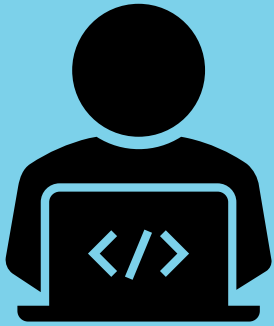


Domain

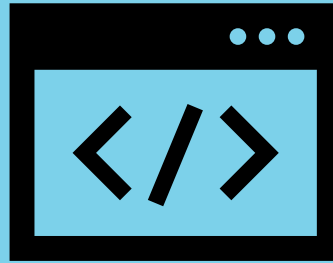


Compute

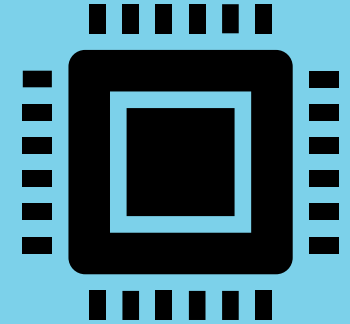
- Authentication via IAM or SSO
- AWS console access not required
- Fast notebook start-up



User

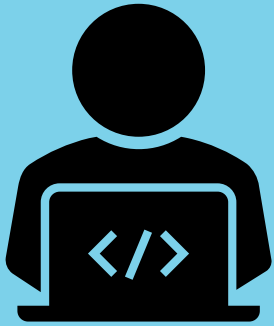


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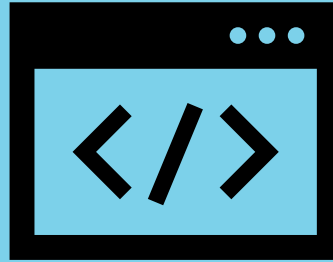


Compute

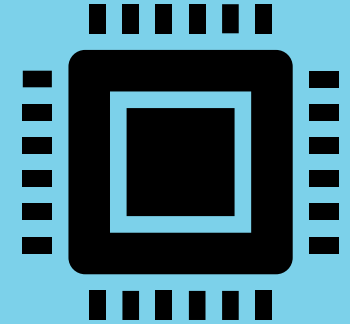
- Authentication via IAM or SSO
- AWS console access not required
- Fast notebook start-up
- Familiar IDE based on Jupyter Lab
- Backed by Elastic File System (EFS)
- One domain per account per region



User



Domain

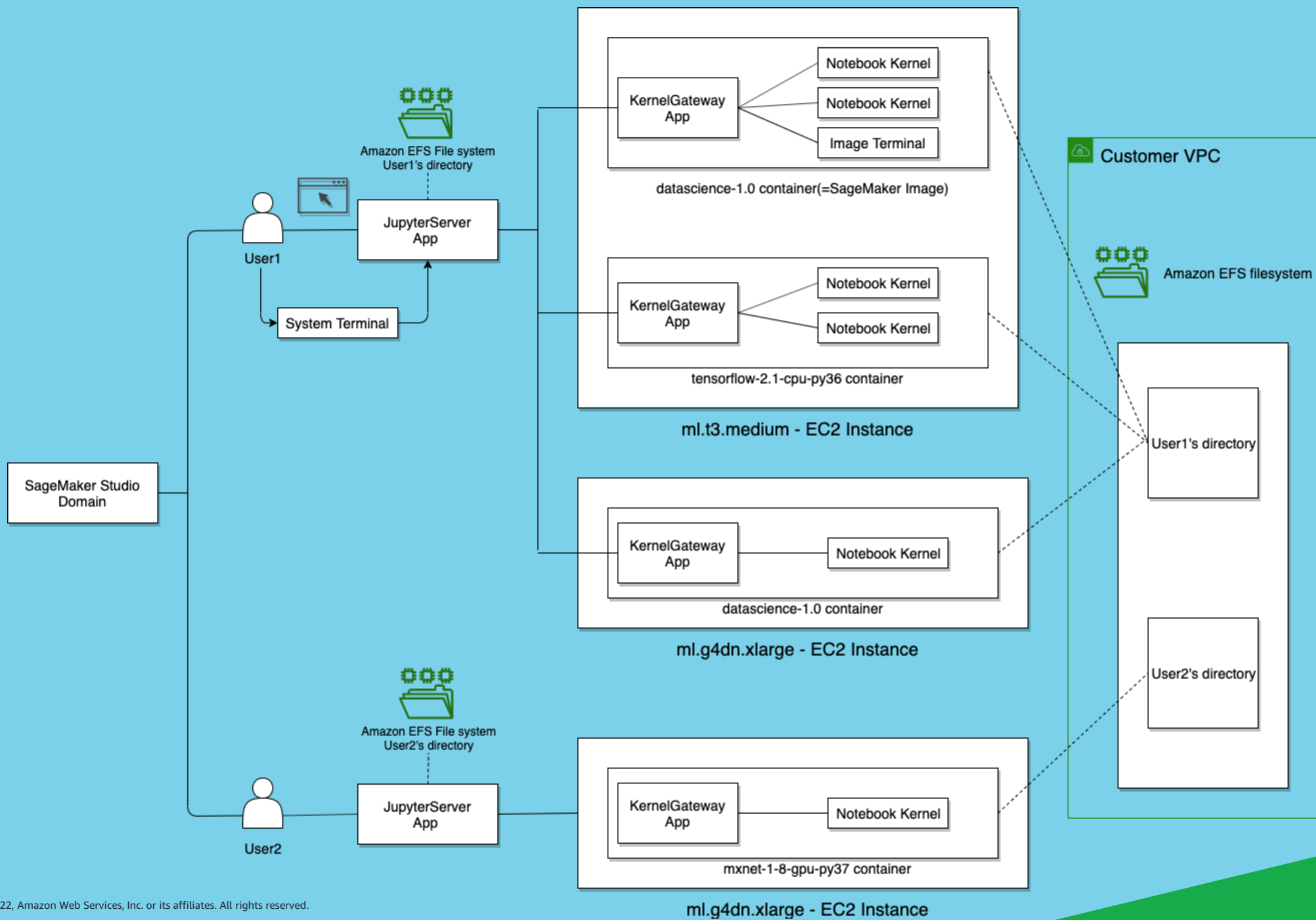


Compute

- Authentication via IAM or SSO
- AWS console access not required
- Fast notebook start-up

- Familiar IDE based on Jupyter Lab
- Backed by Elastic File System (EFS)
- One domain per account per region

- Flexible - Dial up or down compute resources
- Fully managed and secure
- Consumption based billing



Demo



Where to start?



Starting your ML journey



Training



Proof of concept



Production

Building your team's skills



Hands-on learning



Training and certification

coursera

edX

UDACITY

DeepLearning.AI

AWS DeepRacer
reinforcement learning

AWS DeepComposer
Generative AI

AWS DeepLens
deep learning

AWS ML training
and certification

Partnerships
with MOOCs



Thank you!