



# Spin up Jupyter Notebooks at scale and increase your productivity

**Aaron Sengstacken**

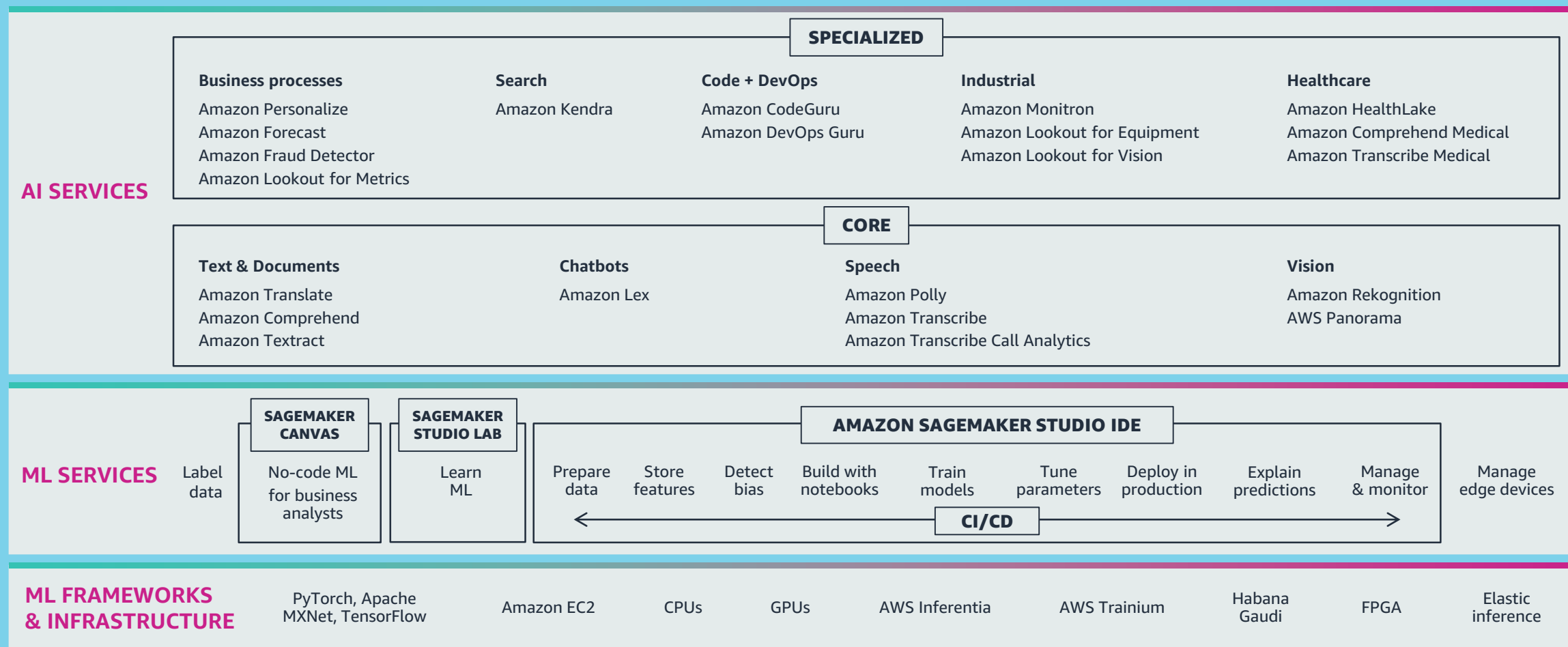
Senior Machine Learning Specialist SA

# Outline

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

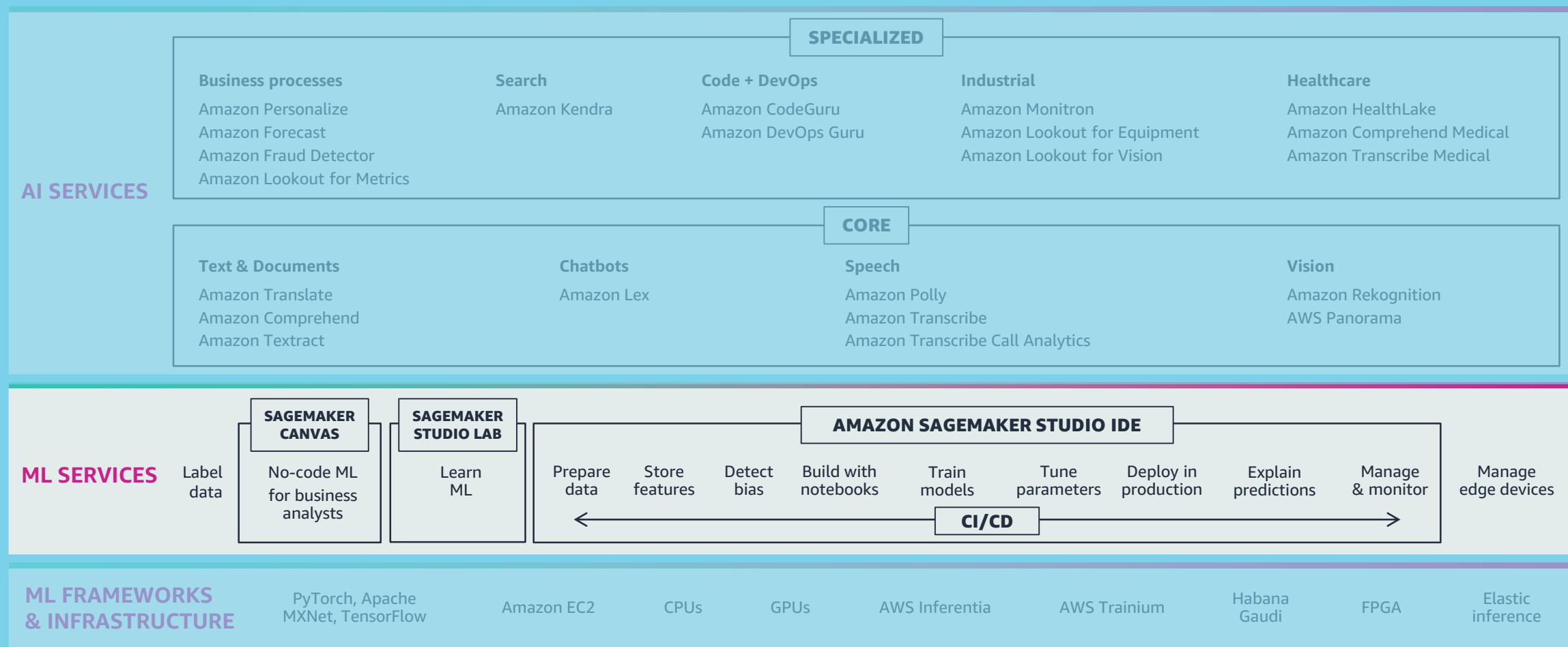
# The AWS ML stack

Broadest and most complete set of machine learning capabilities



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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

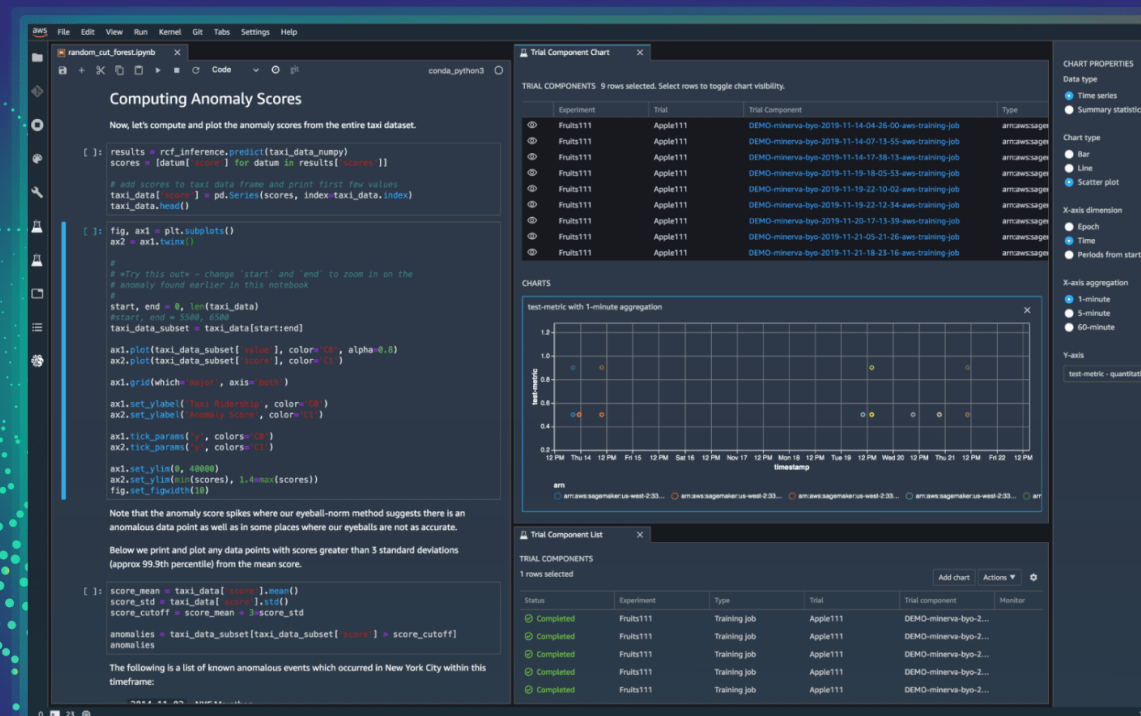
## MANAGED TOOLING

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



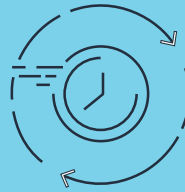
### Easy access with Single Sign-On (SSO)

Access your notebooks  
in seconds



### Fully managed and secure

Administrators  
manage access and  
permissions



### Fast setup

Start your notebooks  
without spinning up  
compute resources



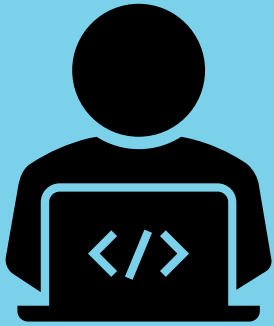
### Easy collaboration

Share notebooks  
with a single click

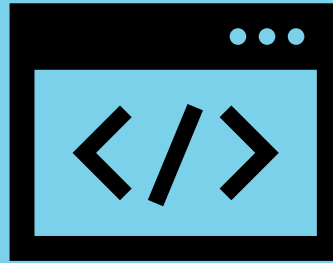


### Flexible

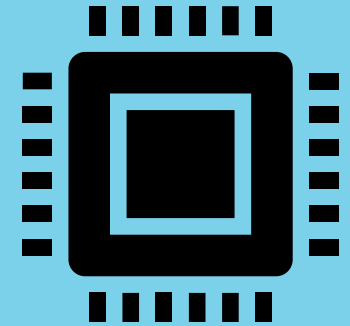
Dial up or down  
compute resources



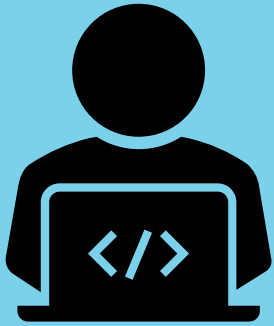
User



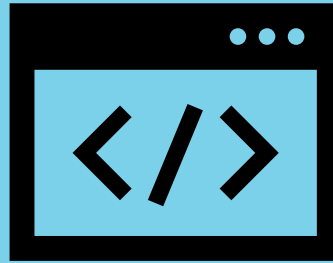
Domain



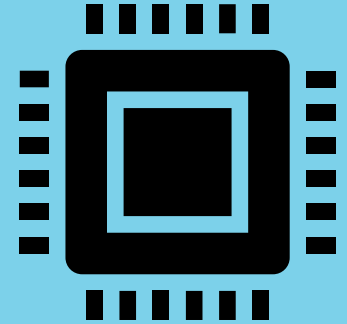
Compute



User



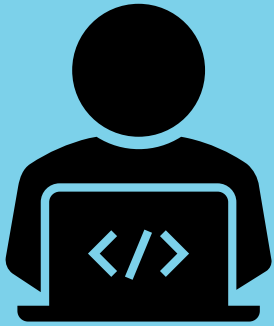
Domain



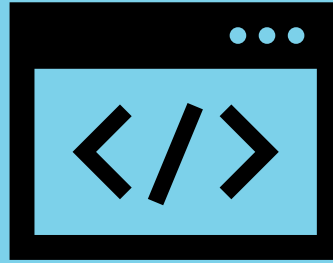
Compute

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

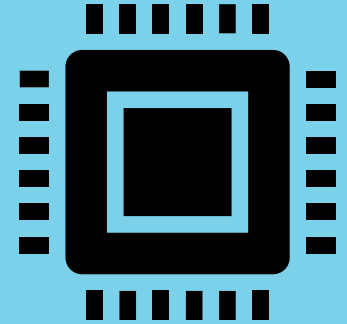




User

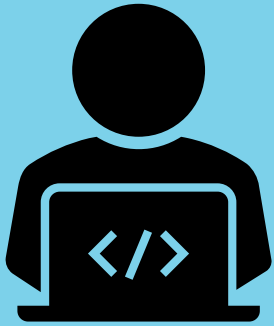


Domain



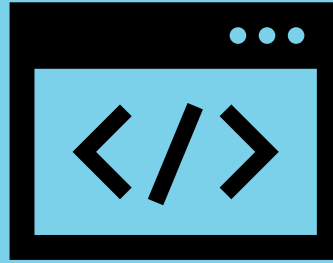
Compute

- 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



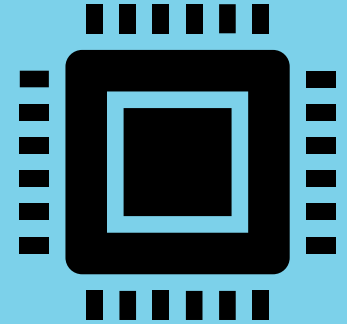
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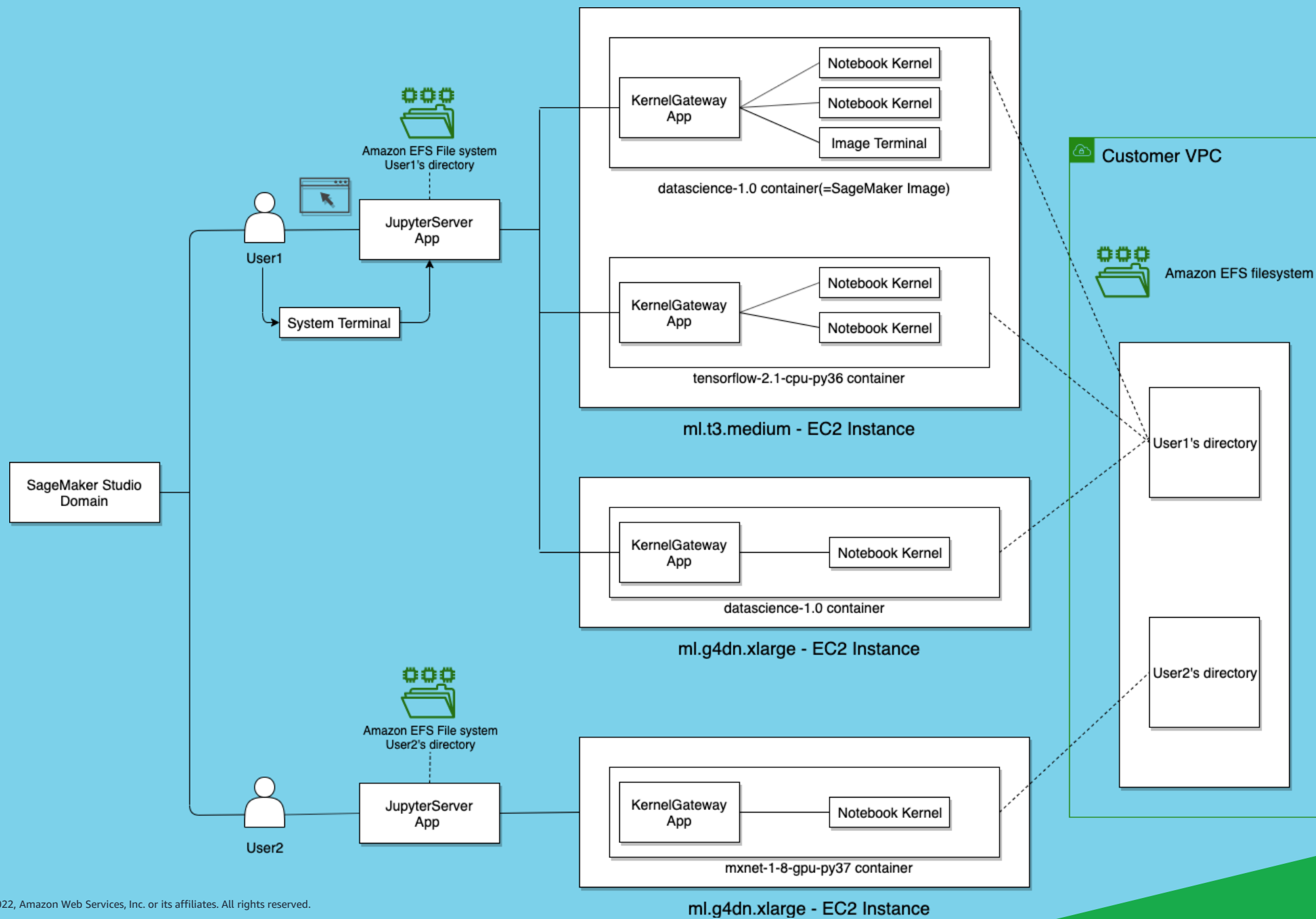
Domain

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Compute

- 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**



 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!