ETH zürich

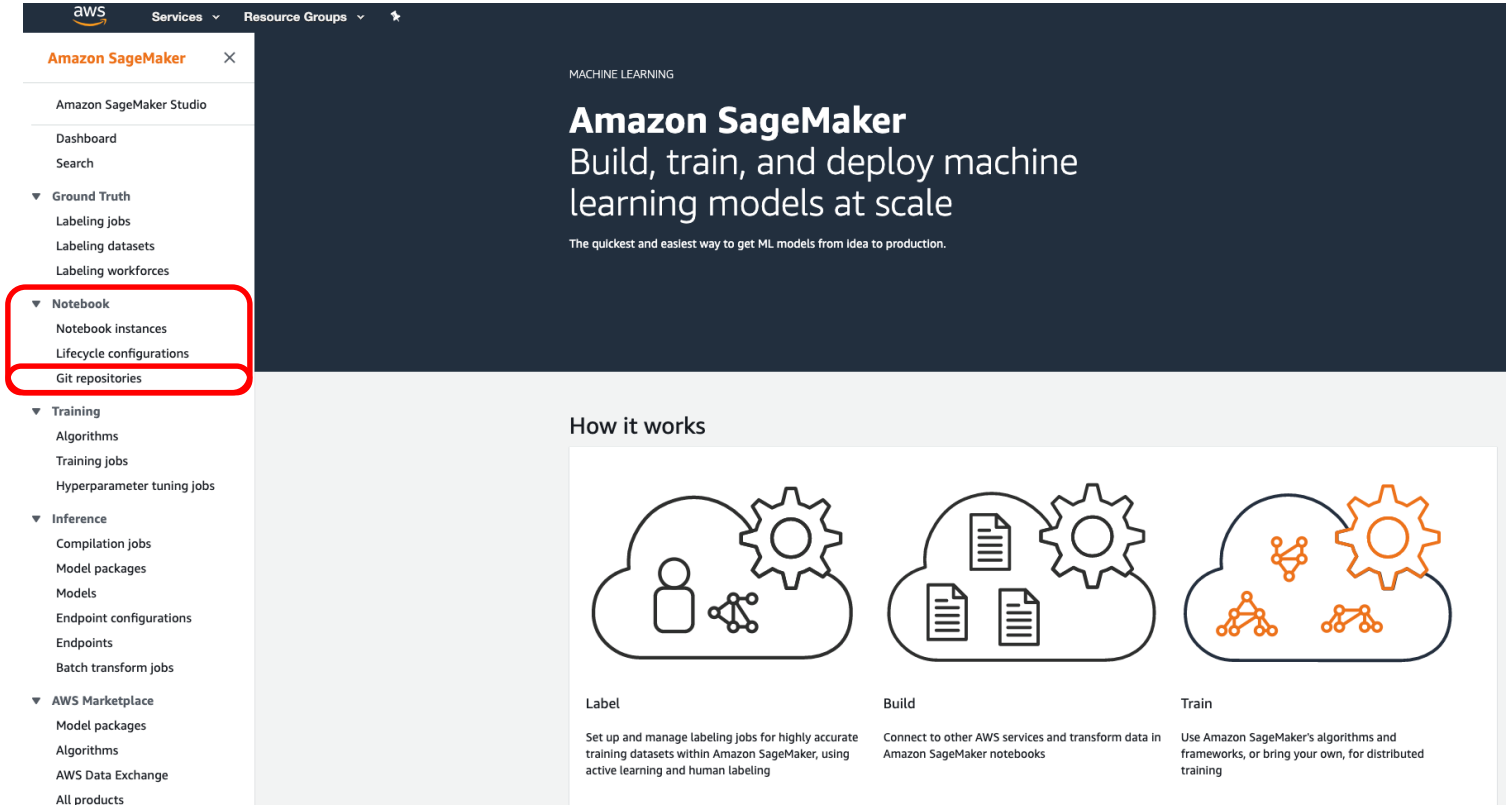
Deep Learning for Autonomous Driving

Git in SageMaker, Training Instances, and SageMaker Hints

CVL Computer Vision Lab

AWS – How to use your personal Git in Sagemaker

- This is a quick guide how to use a Git with Sagemaker
- It is assumed that you already know how to set up a sagemaker notebook

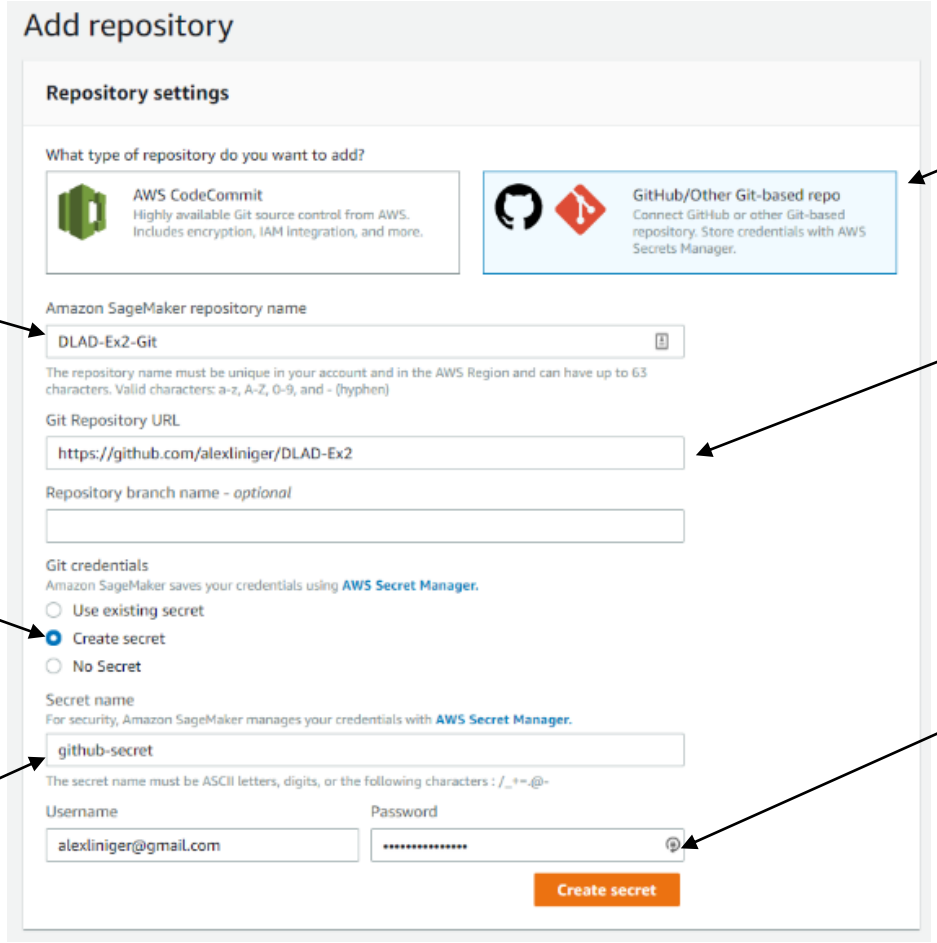


First Steps – Add Private Repository

Name of the repository in Sagemaker

Create new secrete to access your GitHub/GitLab

Name of the secret (the secrete can be reused for other repositories)



If you use GitHub or GitLab

Link to your personal Git

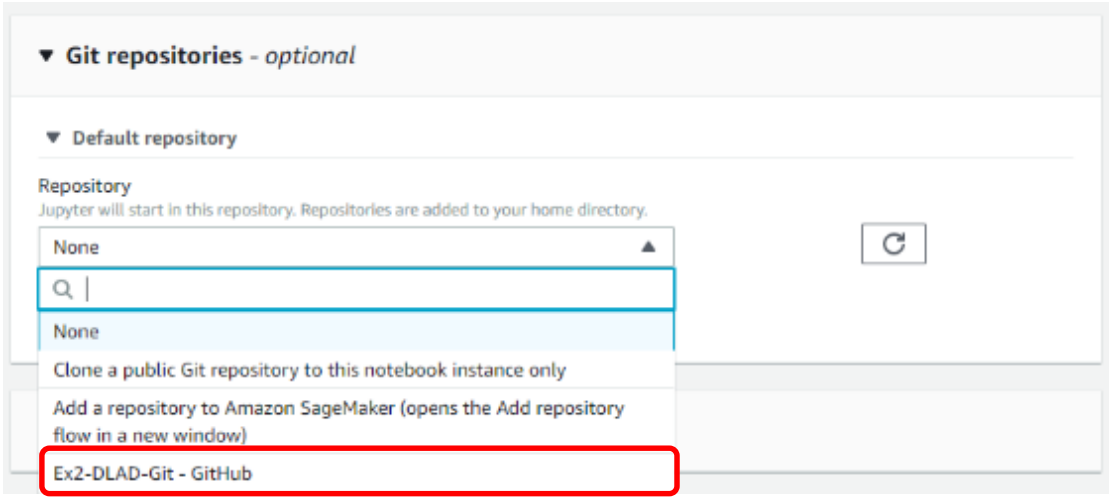
1. If you use gitlab.ethz.ch you need to use the https clone link:
   https://gitlab.ethz.ch/user/dlad_ex2_multitask.git

Username and Password of your Git

1. You can use a token instead of your password
2. GitHub needs your email as username, ETH-GitLab only your nethz username

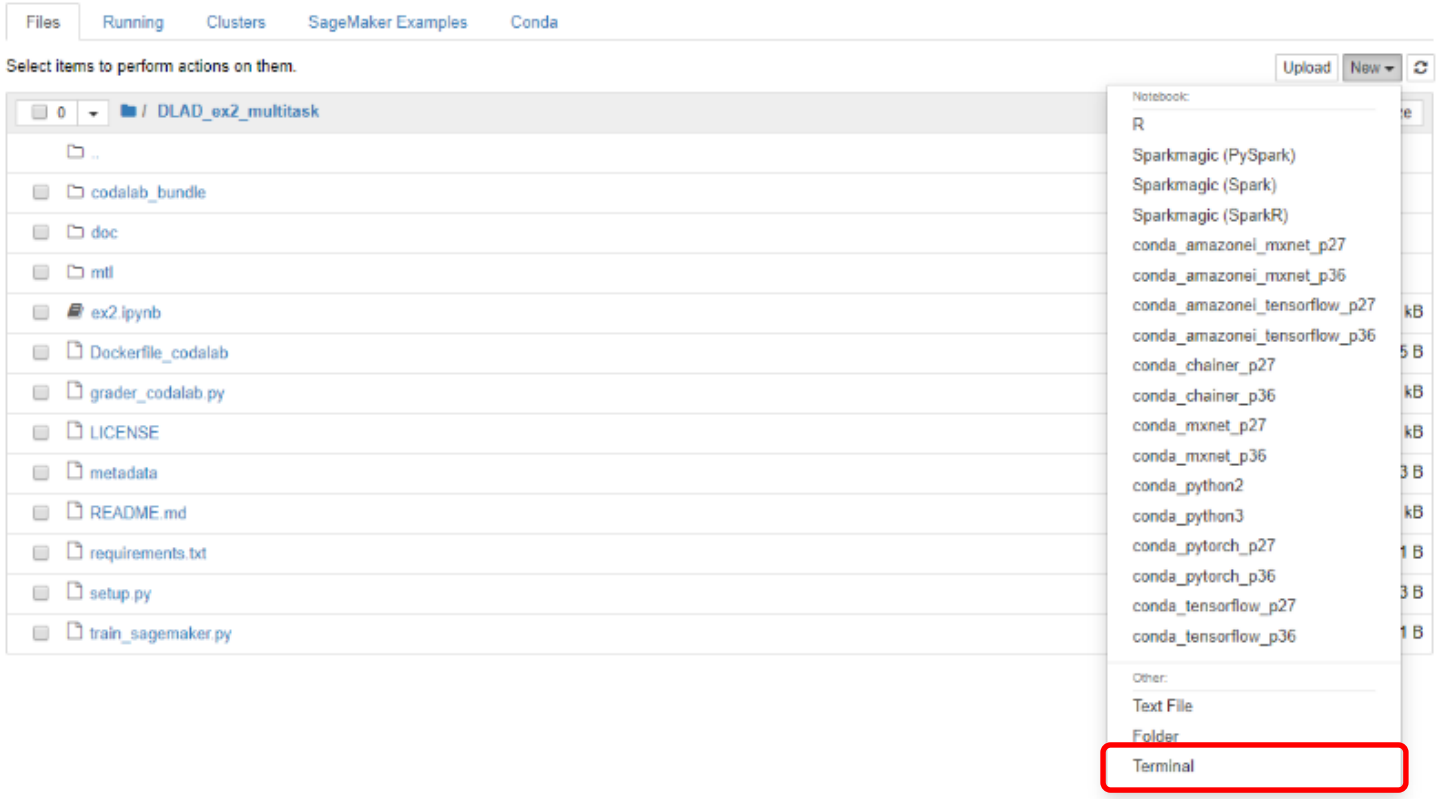
Create Notebook

- **Create notebook identical to tutorial but use your own Git**



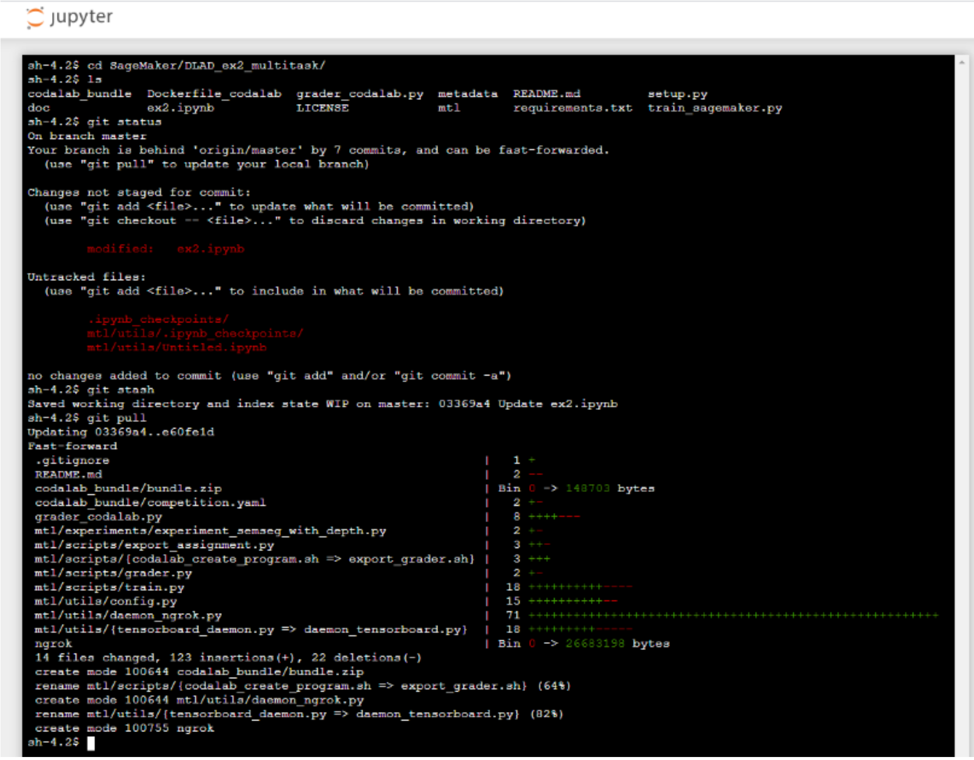
Work with your Git within your Notebook Instance

- Open notebook instance
- New -> Terminal



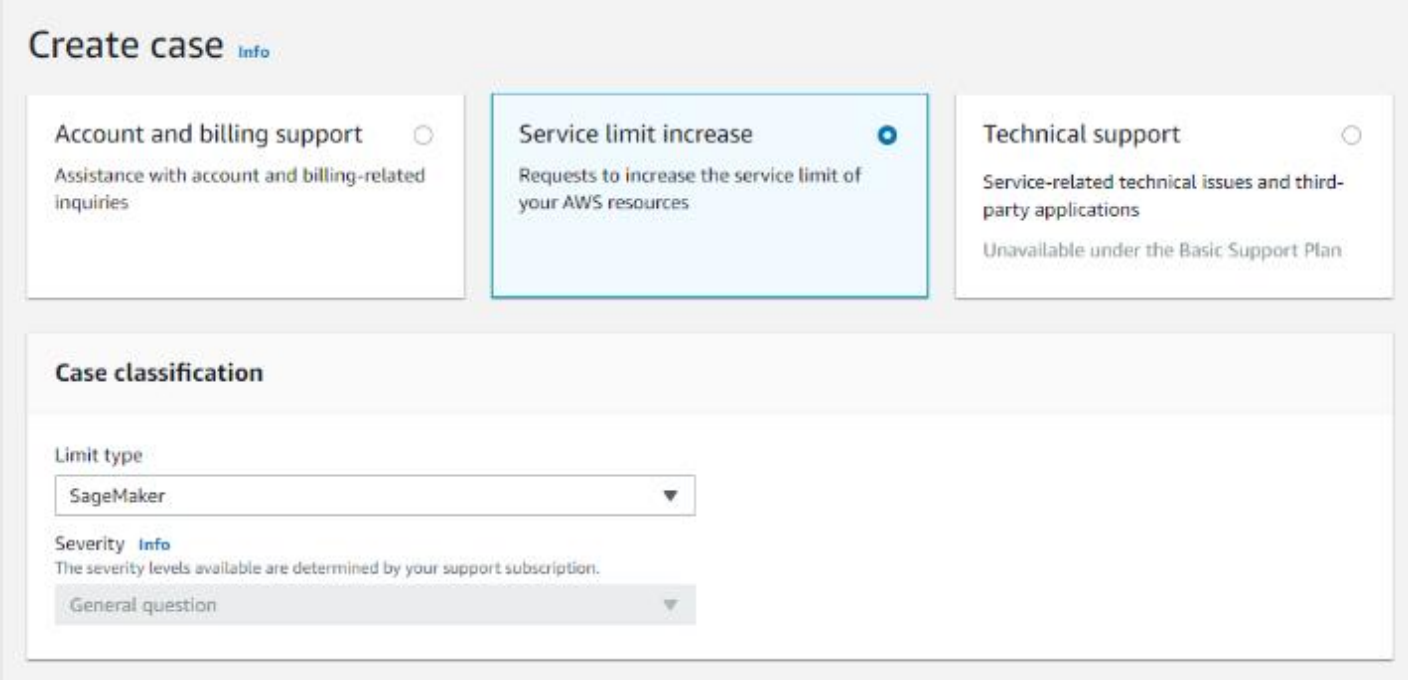
Work with Terminal

- This opens a terminal in a new browser windows
- Go to project folder -> cd SageMaker/<project-name>
- Use git in the terminal



Applying for SageMaker training instances

- To train with GPU instances you need to apply for p2.xlarge training instances
- Navigate to **Support** and **Create Case** a new support case

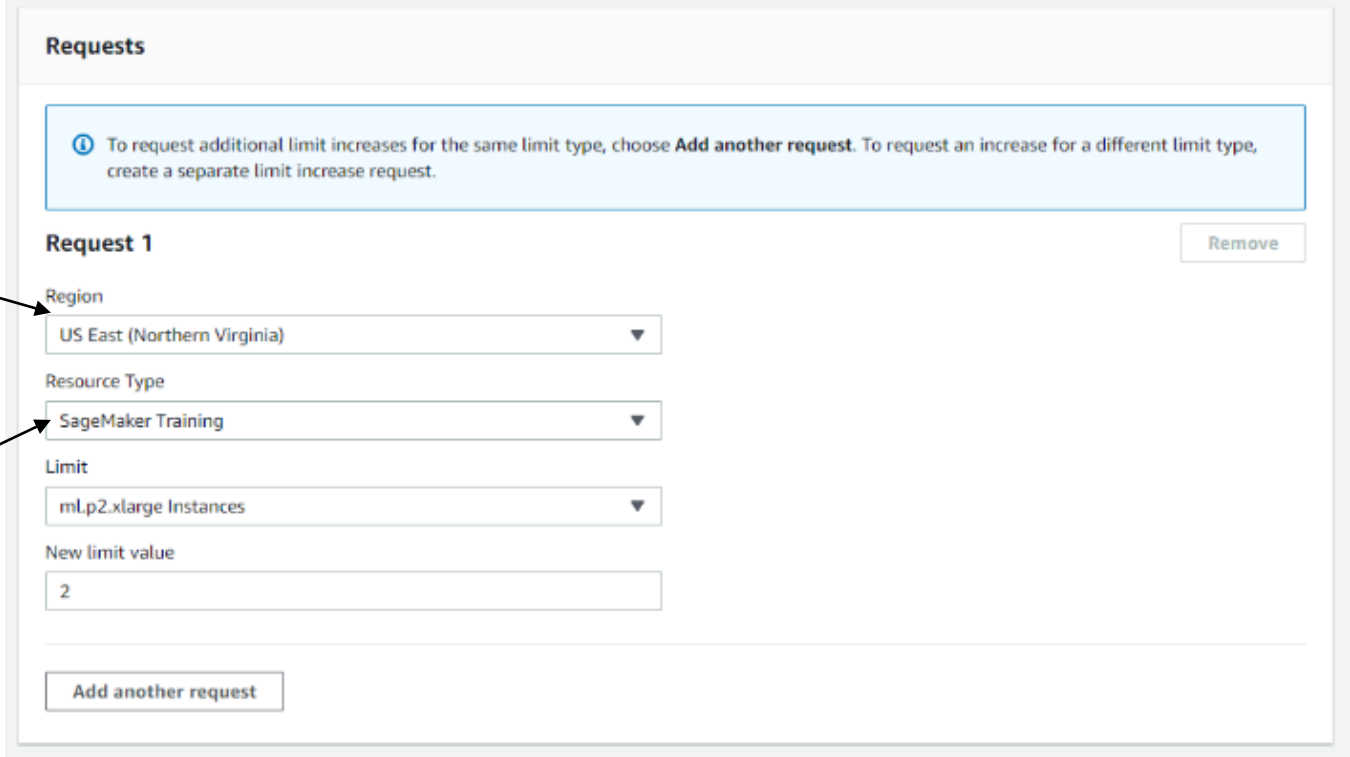


Applying for SageMaker training instances

- To train with GPU instances you need to apply for p2.xlarge training instances
- Navigate to **Support** and **Create Case** a new support case

Instances are only available in this region

Important that you apply for **Training**



Applying for SageMaker training instances

- To train with GPU instances you need to apply for p2.xlarge training instances
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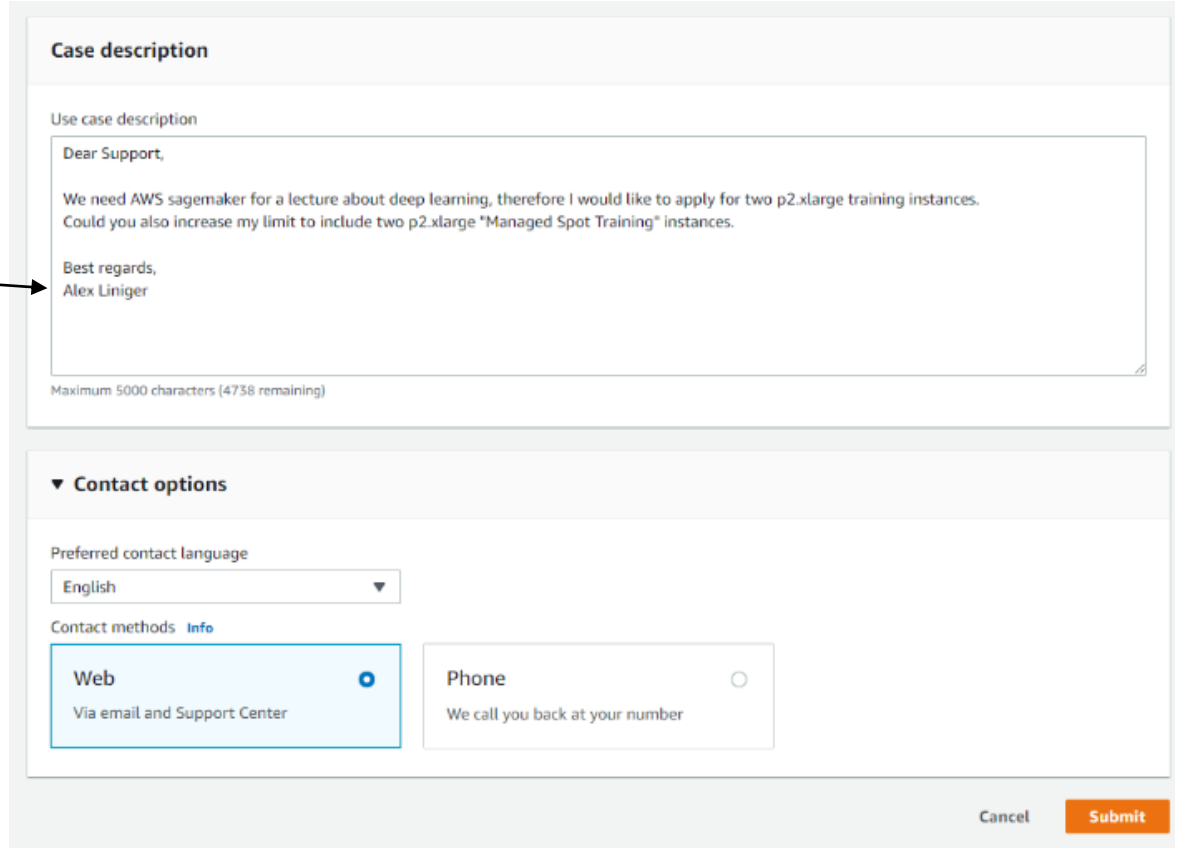
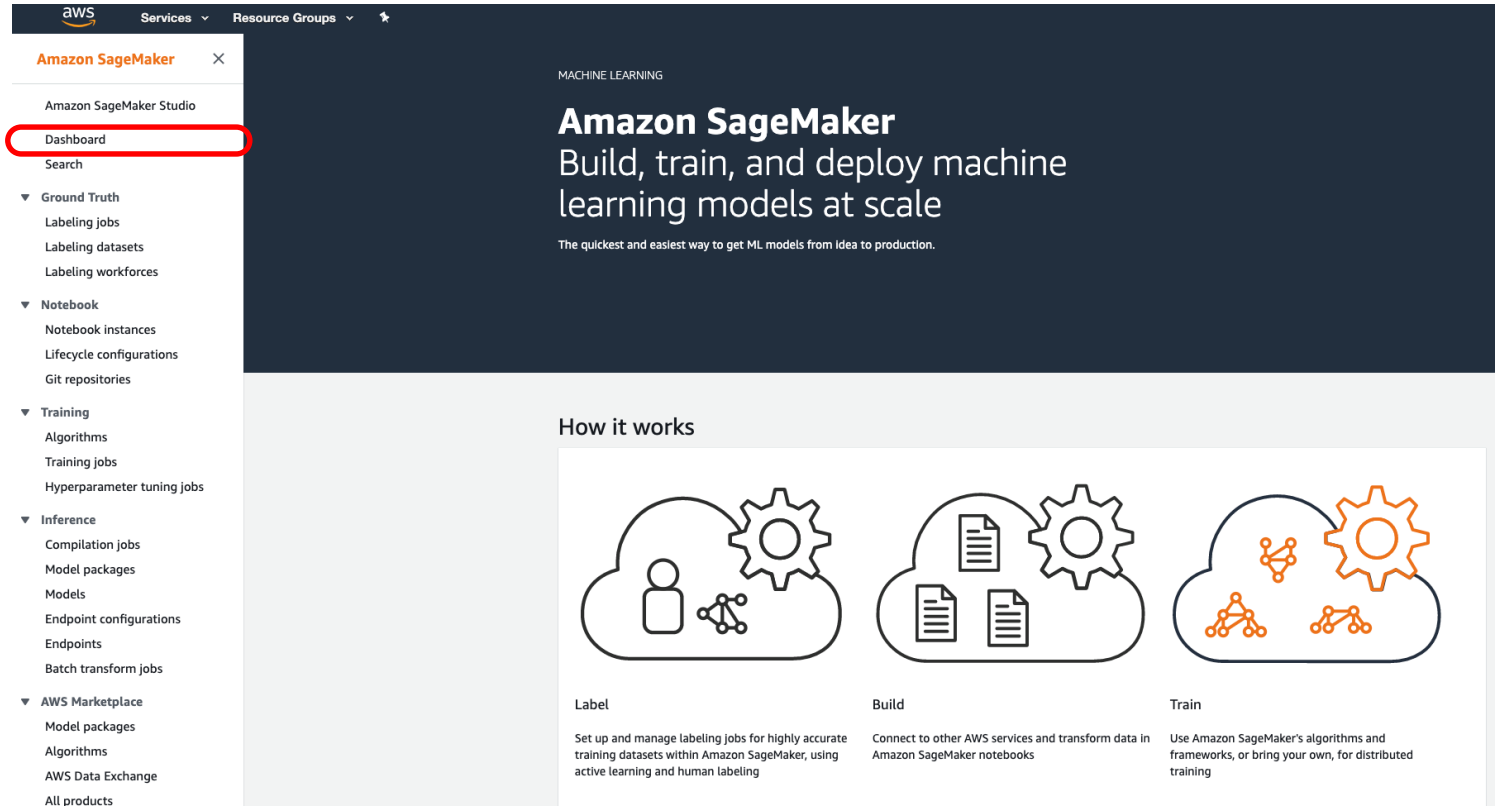
Change name



SageMaker DashBoard

- See an overview of training jobs and notebooks

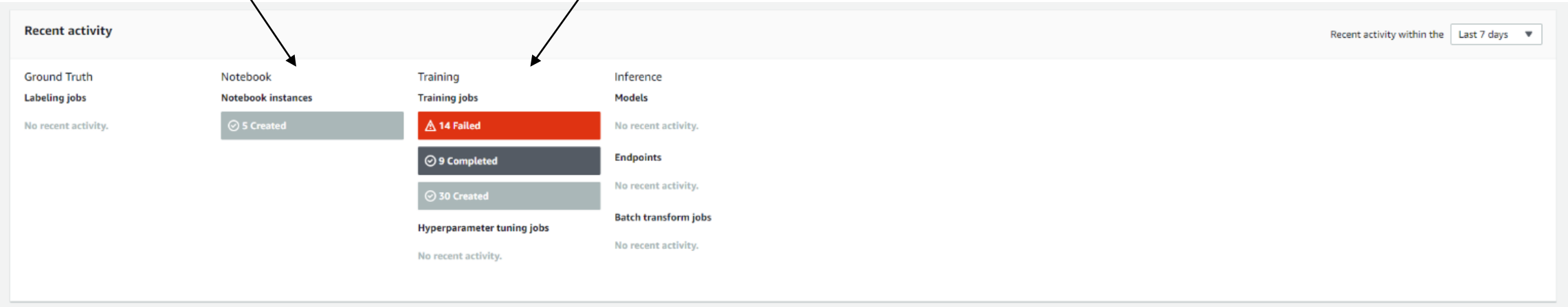


SageMaker DashBoard

- **See an overview of training jobs and notebooks**

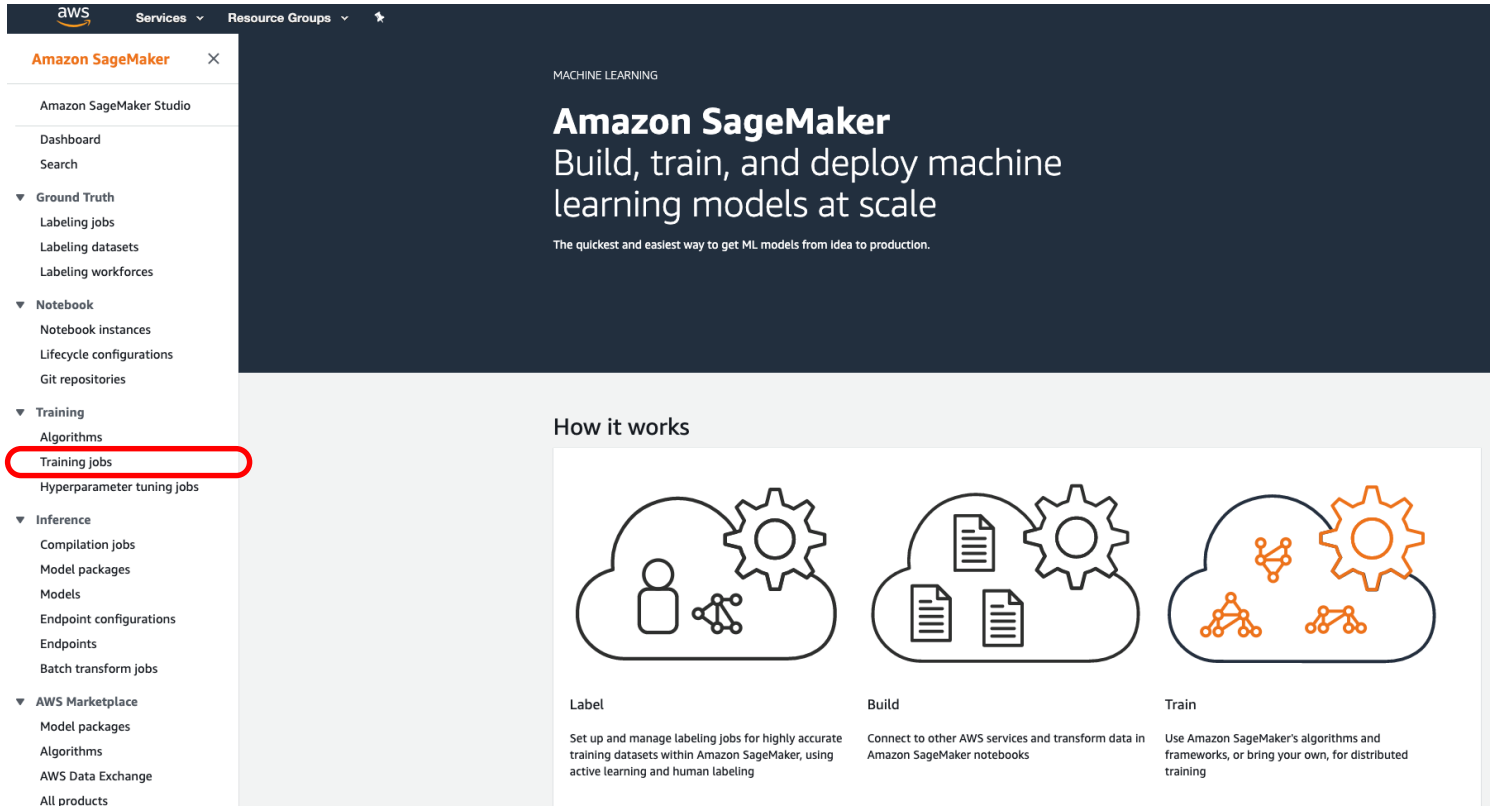
Shows running notebooks

Shows how many training Jobs are running
Can be helpful if you do not have enough instances and you do not know why



SageMaker Training Jobs

- **Overview of all past and current training jobs**



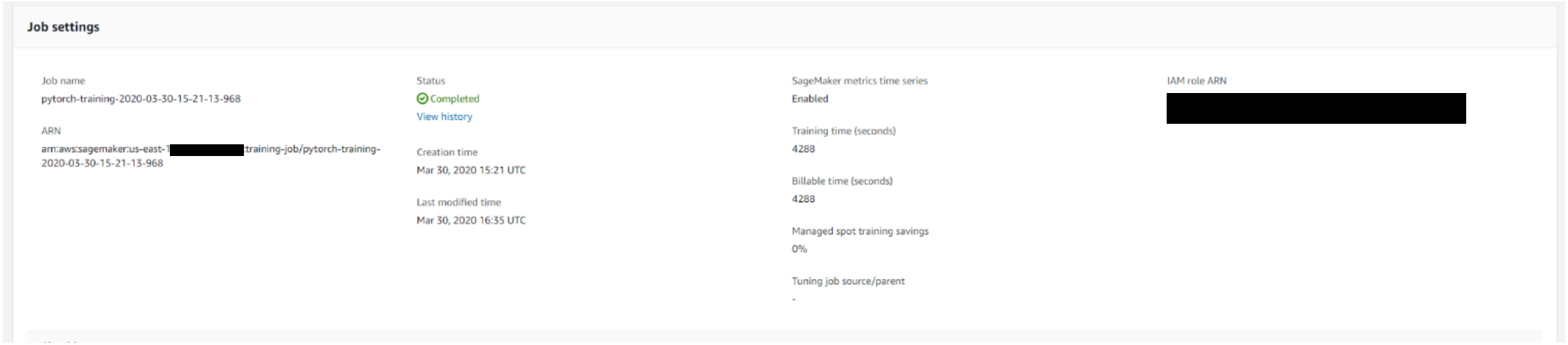
SageMaker Training Jobs

- **Info about all training job**

Name	Creation time	Duration	Status
pytorch-training-2020-03-30-15-21-13-968	Mar 30, 2020 15:21 UTC	an hour	Completed
pytorch-training-2020-03-27-21-35-42-590	Mar 27, 2020 21:35 UTC	3 hours	Completed
pytorch-training-2020-03-27-17-18-40-609	Mar 27, 2020 17:18 UTC	3 hours	Completed
pytorch-training-2020-03-27-15-50-59-480	Mar 27, 2020 15:51 UTC	5 hours	Stopped
pytorch-training-2020-03-27-13-28-13-038	Mar 27, 2020 13:28 UTC	an hour	Completed
pytorch-training-2020-03-27-13-08-15-559	Mar 27, 2020 13:08 UTC	7 minutes	Failed
pytorch-training-2020-03-27-13-03-46-915	Mar 27, 2020 13:03 UTC	3 minutes	Stopped
pytorch-training-2020-03-27-13-03-20-707	Mar 27, 2020 13:03 UTC	5 minutes	Stopped
pytorch-training-2020-03-27-10-55-50-897	Mar 27, 2020 10:55 UTC	an hour	Completed
pytorch-training-2020-03-27-10-20-38-936	Mar 27, 2020 10:20 UTC	39 minutes	Stopped

SageMaker Training Jobs

- Detailed info about training job
- Including hyperparameters, run time, …



SageMaker Training Jobs

- Detailed info about training job
- Also GPU and memory usage