

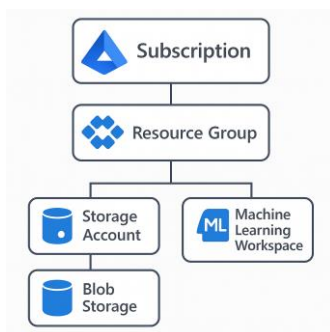
Sampling af billeder

Struktur kode

I Python mappen findes en fil: `config_file.yaml` som primært er den der skal ændres i for at kører sampling koden som findes i `VideoFrameSampler.py`.

Struktur Azure

1. **Subscription:** Det øverste lag, der indeholder dine ressourcer og bestemmer hvem der betaler og hvad du har adgang til. Vi har nu fået en subscription til statistikgruppen der hedder sg-stat-analyser. Bemærk, dog at økonomi stadig kan følges på resourcegruppe niveau, så omkostningerne kan faktureres ud til projekter, så længe de har egen ressource gruppe.
2. **Ressource group:** en samling af relaterede ressourcer, som du vil administrere samlet. Tænk på det som en mappe, hvor du gemmer alt, der hører til et specifikt projekt. Der skal oprettes en resourcegruppe for hvert projekt. Vi har fx statistik-afp1266-rg.
3. **Resources:** De konkrete services, fx Blob Storage ("sky-hardisk") eller Azure Machine Learning Workspace. Storage accounts kan vises



Oprettelse af ressourcegruppe (kan man kun hvis man har rettigheder på subscription niveau)

1. I Azure under home, vælges 'Resource groups'

Azure services



Create a resource

Resource groups

Quotas

All resources

Subscriptions

Cont instz

Resources

Recent Favorite

Name

Type

statistik-afp1266-rg

Resource group

2. Derefter vælges create Resource groups

SEGES Innovation PS (SEGES.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Assign tags

You are viewing a new version of Browse experience. Click here to access the old experience.

Filter for any field... Subscription equals all Location equals all Add filter

Name ↑

rg-mdc-securescore-export

SEGES-INSIGHT-RG

SEGES-INSIGHT-RG2

statistik-afp1266-rg

test-rg

Home > Resource groups >

Create a resource group

Basics Tags Review + create

Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

Subscription * sg-stat-analyser

Resource group name * Statistik-afp1234-rg

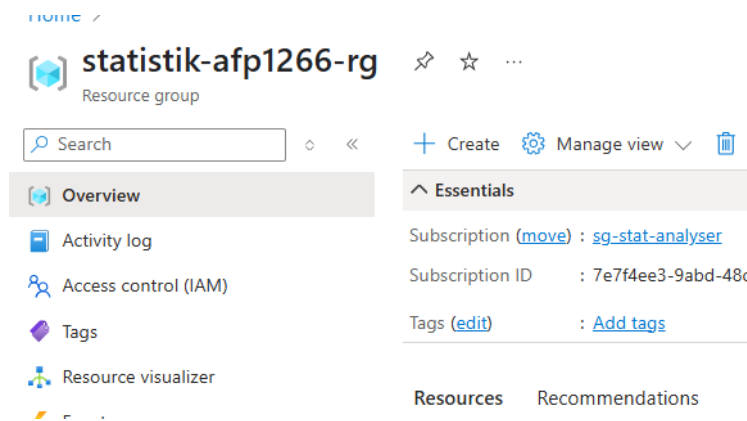
You do not have permissions to create resource groups under subscription 7e7f4ee3-9abd-48d1-9021-c009c9334f46.

Region * (Europe) West Europe

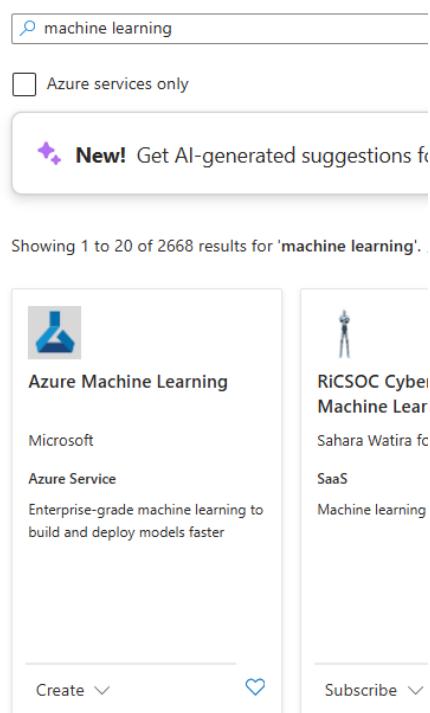
Previous Next Review + create

Oprettelse af ML workspace (opretter automatisk tilhørende storage account)

1. Gå in under ressourcen og tryk på 'create'



2. Herefter dukker Marketplace op, søg på machine learning og tryk 'create'



3. Indtast informationerne, og vær opmærksom på valg af region — det kan være en fordel at vælge en anden region, f.eks. for sprogmodeller. Opret en ny storage account ved at trykke på "create new" og angive et navn. Vælg replication: lokal backup (samme datacenter) eller geo (andet datacenter), hvor sidstnævnte er dyrere.

Home > statistik-afp1266-rg > Marketplace >

Azure Machine Learning

Create a machine learning workspace

Basics Inbound Access Outbound Access Encryption Identity Tags Review + create

Resource details

Every workspace must be assigned to an Azure subscription, which is where billing happens. You use resource groups like folders to organize and manage resources, including the workspace you're about to create. [Learn more about Azure resource groups](#)

Subscription * ⓘ sg-stat-analyser

Resource group * ⓘ statistik-afp1266-rg [Create new](#)

Workspace details

Configure your basic workspace settings like its storage connection, authentication, container, and more. [Learn more](#)

Name * ⓘ statistik-afp1266-mlws
✖ This workspace name already exists

Region * ⓘ West Europe

Storage account * ⓘ (new) statistikafp128867393072 [Create new](#)

Key vault * ⓘ (new) statistikafp122417671962 [Create new](#)

Application insights * ⓘ (new) statistikafp125933843208 [Create new](#)

Container registry ⓘ None

Create new storage account

Name * ⓘ afp1266 ✓

Replication * ⓘ Locally-redundant storage (LRS) ✓

- Der skal også oprettes en nøgle en key walt, så man kan tilgå sit data fra fx Python.
- Der oprettes også en Application Insights-ressource. Det er en monitorerings- og diagnosticerings-værktøj i Azure

Home > statistik-afp1266-rg > Marketplace >

Azure Machine Learning

Create a machine learning workspace

Resource details

Every workspace must be assigned to an Azure subscription, which is where billing happens. You use resource groups like folders to organize and manage resources, including the workspace you're about to create. [Learn more about Azure resource groups](#)

Subscription * ⓘ sg-stat-analyser

Resource group * ⓘ statistik-afp1266-rg [Create new](#)

Workspace details

Configure your basic workspace settings like its storage connection, authentication, container, and more. [Learn more](#)

Name * ⓘ statistik-afp1266-mlws
✖ This workspace name already exists

Region * ⓘ West Europe

Storage account * ⓘ (new) afp1266 [Create new](#)

Key vault * ⓘ (new) statistikafp122417671962 [Create new](#)

Application insights * ⓘ (new) statistikafp125933843208 [Create new](#)

Container registry ⓘ None [Create new](#)

Create new application insights

Name * ⓘ statistik-afp1266-ai
✖ This application insights name already exists

- Container registry kan anvende hvis man har brug for en container, typisk Docker images, som bla. anvendes til at versionere og genbruge images.
- Tryk nu next, så kommer du videre til Inbound Acces – altså hvem der må tilgå din service og hvordan. Selvom man vælger alle netværker, skal man stadig have en nøgle, ellers skal man være på

SEGES's IP-adresse for at få adgang. Data science benytter altid "all networks", så det har vi også gjort i vores eksempel. Derudover skal der ikke specificeres for ML workspacet oprettes.

Basics

Inbound Access

Outbound Access

Encryption

Identity

Tags

Review + create

Public network access allows access to this resource through the internet using a public IP address. An application or resource that is granted access with the following : [more](#)

Public network access *

☐

Disabled

☒

All networks

i All networks, including the internet, can access this resource.

Workspace Inbound access

Name	Subscription	Resource group	Region	Subnet
Click on add to create a private endpoint				
+ Add				

Review + create

< Previous

Next : Outbound Access

Home > statistik-afp1266-rg > Marketplace >

Azure Machine Learning

Create a machine learning workspace

Basics

Inbound Access

Outbound Access

Encryption

Identity

Tags

Review + create

Resource details

Every workspace must be assigned to an Azure subscription, which is where billing happens. You use resource groups like folders to organize and manage resources, including the workspace you're about to create. [Learn more about Azure resource groups](#)

Subscription *

sg-stat-analyser

Resource group *

statistik-afp1266-rg

Create new

Workspace details

Configure your basic workspace settings like its storage connection, authentication, container, and more. [Learn more](#)

Name *

statistik-afp1266-mlws

This workspace name already exists

Region *

West Europe

Storage account *

(new) afp1266

Create new

Key vault *

(new) statistikafp122417671962

Create new

Application insights *

(new) statistikafp125933843208

Create new

Container registry

None

Create new key vault

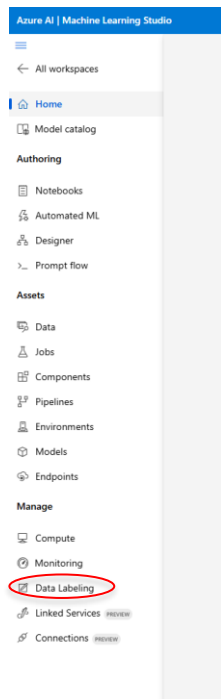
Name *

statistik-afp1266-kv

This key vault name already exists

Opsætning af Data labeling i Azure

1. Log ind på Azure Machine Learning Studio ved at besøge <https://ml.azure.com> og vælg det relevante workspace.
2. For at oprette et nyt labeling-projekt skal du vælge 'Data labeling' i venstremenuen og derefter klikke på 'New'.



3. Udfyld projektinformation - giv projektet et navn (bruges til at referere til datasættet i kode), beskrivelse og vælg opgavetypen.

1Project details

2Add workforce
optional

3Select or create data

4Incremental refresh
optional

5Label categories

6Labeling instructions
optional

7ML assisted labeling
optional

Project details

New feature: To make labeling faster, we've added a new feature to train an ML model while you label. This feature currently supports image or text

Project name *
GoGris

Media type *
☒ Image ☐ Text ☐ Audio

Labeling task type *

Image Classification Multi-class

Image Classification Multi-label

Object Identification (Bounding Box)

Polygon (Instance Segmentation)

Semantic Segmentation (Preview)

Draw polygons on an image and assign a label class to them
[Learn more](#)

4. Vælg eller opret et datasæt, der er relevant for den pågældende opgave.

✓ Project details

✓ Add workforce
optional

3Select or create data

4Incremental refresh
optional

5Label categories

6Labeling instructions
optional

7Quality control (preview)
optional

8ML assisted labeling
optional

Select or create data

Select data from the list below, or create a new data asset. Data labeling projects currently support only Azure ML v1 file and v2 uri_folder, mitable data assets from Azure Blob datastores.

+ Create

Refresh

Show supported data assets only

Reset view

Search

Name	Type	Created on ↓	Modified on
------	------	--------------	-------------

1

Data type

2

Data source

Set the name and type for your data asset

Name *

GoGris_train

Description

Data asset description

Type * ⓘ

Folder (uri_folder)

✓ Data type

2 Data source

Choose a source for your data asset

Choose the data source you want to create your asset from. A data source can be from a local storage location on your computer, from an attached datastore, from Azure storage, or from a publicly available web location.

From a URI

Create a data asset by providing a web URL or a URI that represents a path to your data.

From Azure storage

Create a data asset from registered data storage services including Azure

✓ Data type

✓ Data source

3 Source storage type

4 Storage path

5 Review

Select a datastore

Choose a storage type and a datastore that contains your data. You can also create a new datastore for your data first.

Datastore type *

Azure Blob Storage ⓘ Create new datastore

Search datastore

Name ↓	Storage name	Created on
✓ workspaceblobstore	afp1266sa	Apr 9, 2025 12:56 PM
workspaceartifactstore	afp1266sa	Apr 9, 2025 12:56 PM

✓ Data type

✓ Data source

✓ Source storage type

4 Storage path

5 Review

Choose a storage path

Navigate to or enter the storage path you want to use for this data asset. With the uri_folder type, your path must point to a single folder.

Browse to storage path

Enter storage path manually

Selected path: GoGris/Annotation_data/

GoGris

Name	Created on	Modified on
✓ Annotation_data/	--	--

✓ Project details

✓ Add workforce
optional

3 Select or create data

4 Incremental refresh
optional

5 Label categories

6 Labeling instructions
optional

7 Quality control (preview)
optional

8 ML assisted labeling
optional

Select or create data

Select data from the list below, or create a new data asset. Data labeling projects currently support only Azure ML v1 file and v2 uri_folder, mitable data assets

+ Create

↻ Refresh

☒ Show supported data assets only

↺ Reset view

🔍 Search

Name	Type	Created on ↓	Modified on
✓ GoGris_train	Folder	Jul 7, 2025 3:35 PM	Jul 7, 2025 3:35 PM

5. Aktivér incremental refresh for automatisk at hente nye data, når de uploades.

✓ Project details

✓ Add workforce
optional

✓ Select or create data

4 Incremental refresh
optional

Incremental refresh

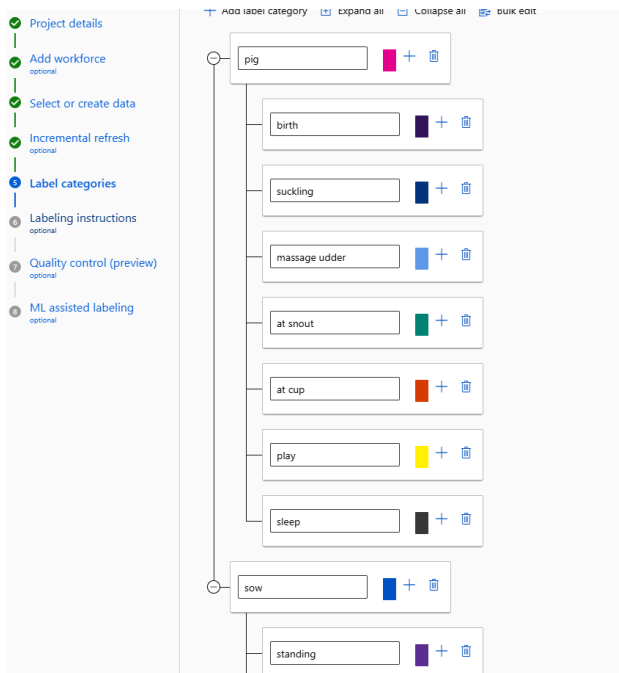
Your dataset will be periodically checked for new datapoints. Any new datapoints will be added as new tasks on the project.

Enable incremental refresh at regular intervals

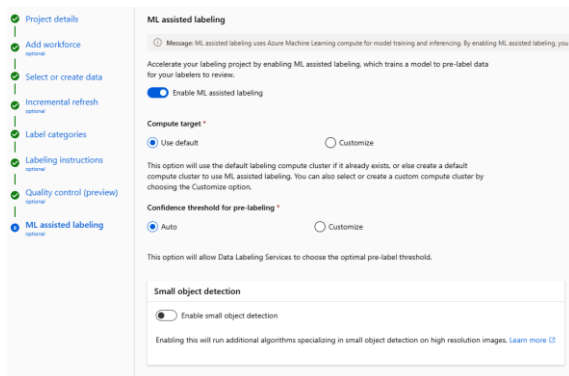
☒

[Learn more](#)

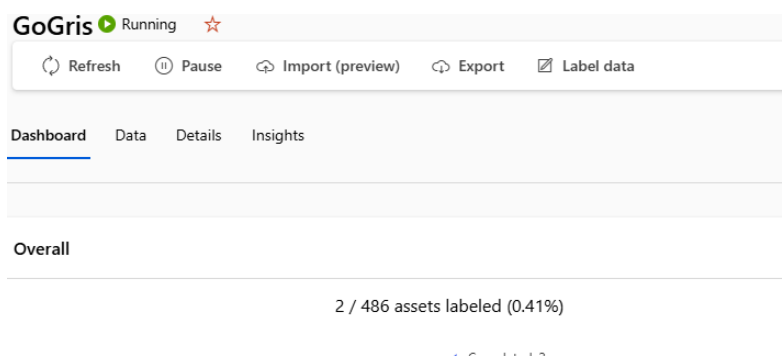
6. Opret labels kategorier



7. Tillad ML assistance i annotering hvis det ønskes



8. Projektet kan nu startes (tryk start) og derefter kan man klikke på Label data for at annotere



Tildel roller

Hvis du går ind på din subscription, som fx sg-stat-analyser, kan du søge om at blive owner i 8 timer ved at trykke "activate" (hvis Heidi eller Mogens har oprettet dig). Det er nødvendigt for at kunne give andre roller, fx til teknikere. Derefter kan du under Access control i din ressource, fx ML workspace, tilføje brugere med specifikke roller. Ellers har du kun de rettigheder, du er tildelt på ressourcen.

 **statistik-afp1266-mlws | Access control (IAM)** ☆ ...
Azure Machine Learning workspace

⌵ ⌵ + Add ⌵ ⬇ Download role assignments ⌵ Edit columns ⌵ Refresh

 Overview

 Activity log

 **Access control (IAM)**

 Tags

 Diagnose and solve problems

 Resource visualizer

Add role assignment

Check access Role assignments Roles Deny assignments Classic

My access
View my level of access to this resource.
[View my access](#)

Check access
Review the level of access a user, group, service principal, or managed identity has to

Add role assignment ...

[Role](#) [Members](#) [Conditions](#) [Review + assign](#)

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#)

[Job function roles](#) Privileged administrator roles

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

× Type : **All** Category : **All**

Name ↑↓	Description ↑↓
Azure AI Administrator	A Built-In Role that has all control plane permissions to work with Azure AI and its dependencies.
Data Labeling - Labeler	Can label data in Labeling.

Showing 1 - 2 of 2 results.

Role

Members

Conditions

Review + assign

Selected role

Data Labeling - Labeler

Assign access to

☒ User, group, or service principal

☐ Managed identity

Members

+ Select members

Name

Object ID

No members selected

Description

Optional

Labelling

Man kan oprette kategorier og underkategorier, som fx "so" og "gris" med tilhørende beskrivelser. Der findes forskellige labelling-typer, især Object Identification (bounding box) og Polygon. Bounding box er hurtigere og understøttes af mange modeller, men er upræcis ved uregelmæssige former og kan inkludere baggrund. Boksene kan kun være vandrette eller lodrette, men kan roteres efter de er tegnet. Polygoner er mere nøjagtige for komplekse eller overlappende objekter, men tager længere tid at annotere og træne. I vores eksempel er polygoner brugt for større præcision og mulighed for senere at konvertere til bounding boxes for performance-sammenligning. Husk at låse tidligere bokse/polygoner før nye tegnes for at kunne tegne "oveni".

Lagring af materiale

Det er dyrt at gemme mange korte videoer i Blob storage; længere videofiler er billigere. Jeg arbejdede først med videoer på en harddisk og uploadede kun de billeder, der skulle annoteres, til Azure. Lagring af billeder i Azure er billigt (tjek pris), så de kan blive liggende, men overvej at slette videoer, når de ikke længere bruges. Upload lidt ad gangen og hold øje med omkostningerne.