




Click here to create
a new server


The list of your
server is here


Create a Resource
Resources are self-contained compute environments that you can customize with your preferred hardware and software. Multiple resources can run at the same time. [Learn more](#)


New Python Server
Use JupyterLab, or connect PyCharm or VS Code


New R Server
Write and run code in the R IDE



New Deployment
Host an app or API



New Job
Run a task on a schedule or on command


 **Launch in your AWS account**
The most secure option for your code and data


Or use one of our pre-configured resource templates


Large Language Models



LLM Chatbot Tutorial
Tutorial for building a chatbot with Llama, Vicuna, FastChat and Streamlit


Finetune LLMs
Fine Tuning language models. In order to run some of the code here, you may [read more](#)



QA with your Documents
Template project for QA on documents with semantic search



LLM Model Serving Endpoints
Deploy an LLM as a service



Named Entity Recognition
(Coming Soon) This project is a starting point for building an API to extract named [read more](#)



Automated Annotations
(Coming Soon) This project is a starting point for building an batch process that will [read more](#)


Tutorials


Python Tutorials



Python Deep Learning Tutorials



ML Ops Tutorials


R Tutorials


R Deep Learning Tutorials

Resources Owner Show All Resource Types Sort By Recently Started


 Jupyter Server stopped

 [msdi2 / tp-seg_00](#)

Created: 17 hours ago · Started: 16 hours ago

Name your server

Select GPU

 Overview


Show Advanced Options

Owner

misdi2

Name

hands-on'2

 Hardware

The hardware your Jupyter server will run on.

Show Advanced Options

Hardware

CPU

An instance with only CPU processors.

GPU

An instance with both CPU and GPU processors.

Size

T4-XLarge - 4 cores - 16Gi RAM - 1 GPU

Disabled options are not supported due to your account limit. To increase the limit, please contact your administrator.



Overview

[Show Advanced Options](#)

Owner

misdi2



Name

/ hands-on1



Hardware

The hardware your Jupyter server will run on.

[Show Advanced Options](#)

Hardware

CPU

An instance with only CPU processors.

GPU

An instance with both CPU and GPU processors.



Size

T4-XLarge - 4 cores - 16Gi RAM - 1 GPU



Disabled options are not supported due to your account limit. To increase the limit, please contact your administrator.



Environment

The software your Jupyter server will use. This includes libraries, packages, environment variables, and other attributes.

[Show Advanced Options](#)

Image

saturncloud/saturn-python-tensorflow



Version

2023.09.01



Extra Packages

Extra packages are installed every time the resource starts up - right before the start script. Use spaces to separate packages.

If you find yourself adding the same packages to lots of resources, you may want to permanently add packages to a custom image instead. (?)

Conda

Pip

☒ Apt

htop zip unzip

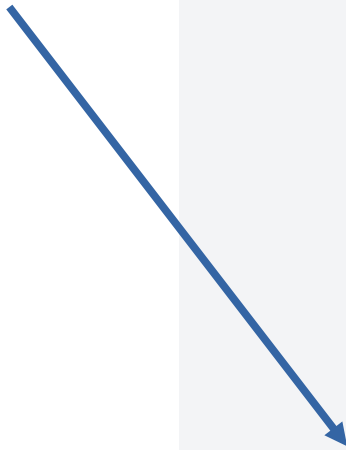
The packages together will run the following script:

```
apt-get install htop zip unzip
```

tensorflow

htop zip unzip

Create your server



Additional features

Optional settings for your Jupyter server.



Allow SSH Connections

Use SSH to directly connect to the server, including through VSCode, PyCharm

Shutoff After

1 hour

Create

Cancel

Start your server:
Can take few minutes

Jupyter Server

stopped

▶ Start



T4-XLarge - 4 cores - 16Gi RAM - 1 GPU - 2Gi Disk

Auto Shutoff: 1 hour

Spot Instance: No

URLs: (server not running)

SSH URL: (not enabled) (?)

Jupyter Lab



Jupyter Server

running

T4-XLarge - 4 cores - 16Gi RAM - 1 GPU - 2Gi Disk

Auto Shutoff: 1 hour
Spot Instance: No
URLs:
<https://w-misdi-hands-on1-476c0a77363943009f9deba302fa2049.community.saturnenterprise.io>
SSH URL: (not enabled) (?)


Jupyter Lab

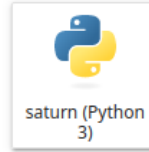
Stop

open your server

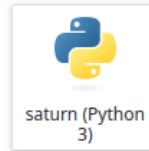
Open a terminal to
get the source code
and data


workspace

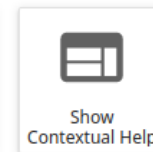
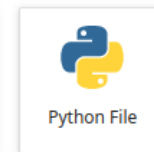
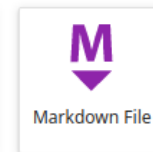
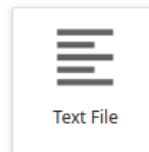
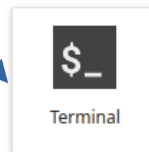
 Notebook



 Console



 Other

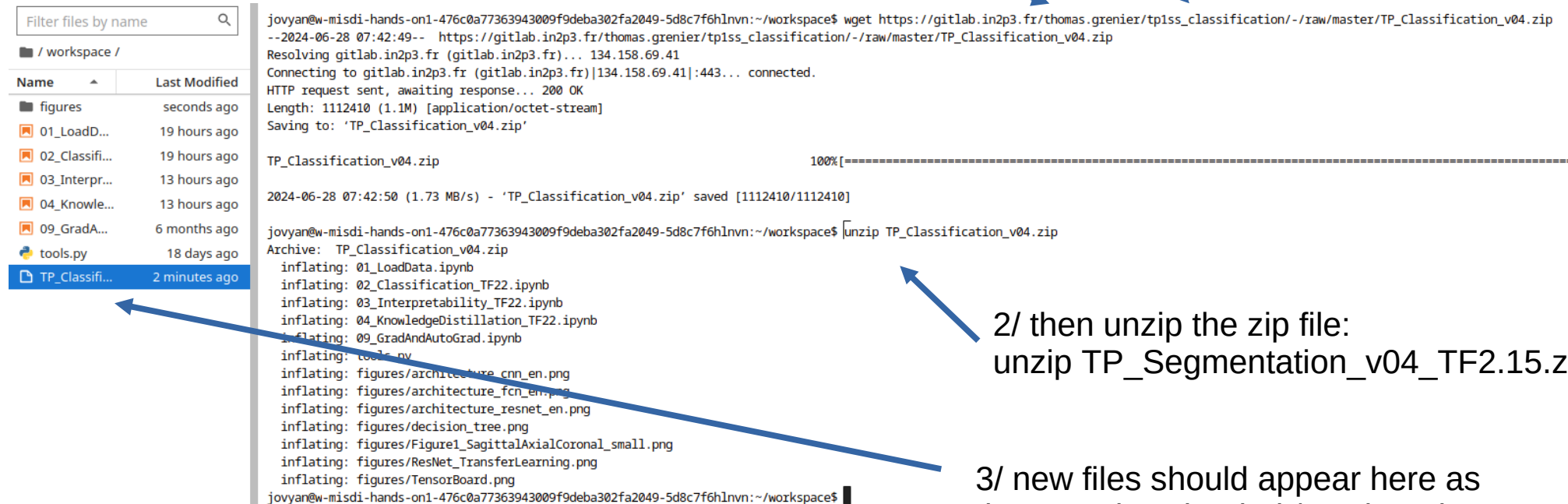


1/ to download: copy/paste the following line:

wget https://gitlab.in2p3.fr/thomas.grenier/tp4ss_segmentation/-/blob/master/TP_Segmentation_v04_TF2.15.zip

1bis/ in case there is a problem with the download / unable to unzip: copy/paste the following line:

wget https://creatis.insa-lyon.fr/~sdika/TP_Segmentation_v04_TF2.15.zip



Filter files by name

/ workspace /

Name	Last Modified
figures	seconds ago
01_LoadD...	19 hours ago
02_Classifi...	19 hours ago
03_Interpr...	13 hours ago
04_Knowle...	13 hours ago
09_GradA...	6 months ago
tools.py	18 days ago
TP_Classifi...	2 minutes ago

```
jovyan@w-misdi-hands-on1-476c0a77363943009f9deba302fa2049-5d8c7f6hl1nv:~/workspace$ wget https://gitlab.in2p3.fr/thomas.grenier/tp1ss_classification/-/raw/master/TP_Classification_v04.zip
--2024-06-28 07:42:49-- https://gitlab.in2p3.fr/thomas.grenier/tp1ss_classification/-/raw/master/TP_Classification_v04.zip
Resolving gitlab.in2p3.fr (gitlab.in2p3.fr)... 134.158.69.41
Connecting to gitlab.in2p3.fr (gitlab.in2p3.fr)|134.158.69.41|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1112410 (1.1M) [application/octet-stream]
Saving to: 'TP_Classification_v04.zip'

TP_Classification_v04.zip                               100% [=====]

2024-06-28 07:42:50 (1.73 MB/s) - 'TP_Classification_v04.zip' saved [1112410/1112410]

jovyan@w-misdi-hands-on1-476c0a77363943009f9deba302fa2049-5d8c7f6hl1nv:~/workspace$ unzip TP_Classification_v04.zip
Archive: TP_Classification_v04.zip
  inflating: 01_LoadData.ipynb
  inflating: 02_Classification_TF22.ipynb
  inflating: 03_Interpretability_TF22.ipynb
  inflating: 04_KnowledgeDistillation_TF22.ipynb
  inflating: 09_GradAndAutoGrad.ipynb
  inflating: tools.py
  inflating: figures/architecture_cnn_en.png
  inflating: figures/architecture_fcn_en.png
  inflating: figures/architecture_resnet_en.png
  inflating: figures/decision_tree.png
  inflating: figures/Figure1_SagittalAxialCoronal_small.png
  inflating: figures/ResNet_TransferLearning.png
  inflating: figures/TensorBoard.png
jovyan@w-misdi-hands-on1-476c0a77363943009f9deba302fa2049-5d8c7f6hl1nv:~/workspace$
```

2/ then unzip the zip file:
unzip TP_Segmentation_v04_TF2.15.zip

3/ new files should appear here as
they are downloaded / unzipped

Double click on notebook here to open it

Filter files by name	
/ workspace /	
Name	Last Modified
figures	a minute ago
01_LoadD...	19 hours ago
02_Classifi...	19 hours ago
03_Interpr...	13 hours ago
04_Knowle...	13 hours ago
09_GradA...	6 months ago
tools.py	18 days ago
TP_Classifi...	3 minutes ago

Hands-on Deep Learning – Image Classification

_This hands-on was originally created by Thomas Grenier (TensorFlow) and Fabien Millioz (PyTorch), CREATIS.

thomas.grenier@creatis.insa-lyon.fr, michael.sdika@creatis.insa-lyon.fr, olivier.bernard@creatis.insa-lyon.fr, odyssee.merveille@creatis.insa-lyon.fr, fabien.millioz@creatis.insa-lyon.fr

Introduction on data

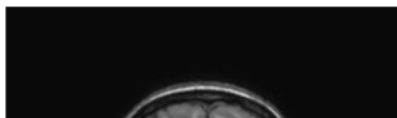
This hands-on is computer scientist-oriented more than application-oriented.

And so, this practice focuses on a meaningless toy example inspired from the MNIST manuscript numbers classification challenge that is considered as the 'hello world' example for some

MR images come from [IXI Dataset](#)

Here, we have to recognize whether a brain slice image is axial, sagittal or coronal and comes from MRI T1w, MRI T2w and Proton Density MR (PD). So, this is a classification problem with

Axial



Sagittal



Coronal



Have fun !!