

How to submit a job that uses TensorFlow

With this tutorial you will be able to submit a job that uses TensorFlow to the batch cluster.

The following steps allow the user to execute a Python script that uses TensorFlow and other Python libraries.

Copy the project folder to the cluster

```
[user@fedora ~]$ scp -r -J user@fw03 /home/user/my_project/ user@cirrus01
```

Access the cluster

```
[user@fedora ~]$ ssh user@cirrus01
```

Clone the reference repository

```
[user@cirrus01]$ git clone https://gitlab.com/lip-computing/computing/tf_run_job.git
```

Submit the job with the Python script inside project folder. In this example, the datasets are in my_datasets subfolder.

```
[user@cirrus01]$ cd my_project
[user@cirrus01 my_project]$ sbatch ~/tf_run_job/run_job --input my_python_script.py --file
my_datasets/dataset1.csv my_datasets/dataset2.csv
```

Once the job is completed the console log with the program messages will be written to a folder in the user's home directory.

```
[user@cirrus01 my_project]$ cat slurm-124811.out
* -----
* Running PROLOG for run_job on Tue Nov 17 17:22:01 WET 2020
* PARTITION      : gpu
* JOB_NAME       : run_job
* JOB_ID        : 124811
```

```
* USER : user
* NODE_LIST : hpc050
* SLURM_NNODES : 1
* SLURM_NPROCS :
* SLURM_NTASKS :
* SLURM_JOB_CPUS_PER_NODE : 1
* WORK_DIR : /users/hpc/user/my_project
```

```
* -----
```

Info: deleting container: 61fb9513-b33d-3b7f-85ed-25db26202b61

7f5d9200-712f-3134-a470-defdffb21e81

Warning: non-existing user will be created

#####

#####

```
# #
# STARTING 7f5d9200-712f-3134-a470-defdffb21e81 #
# #
```

#####

#####

executing: bash

Results available on workdir: /home/hpc/user/Job.ZIV3RW

Any additional support for this procedure or to use different requirements for the provided TensorFlow docker image with GPU, just contact helpdesk@incd.pt.

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