

Tutorial for the usage of NEF cluster

(Please finish the first step before 10/01/2023, finish the rest of the steps before 17/01/2023).

1. Create a private account for the Inria NEF cluster [here](#).

[Please do it as soon as possible before 10/01/2023, as it may take time to create the account]:

- For company: choose "other"
- For email address: [xxxx@etu.univ-cotedazur.fr] (please use your UCA email, no personal)
- Expiration date: 24/03/2023
- SSH public key:
 - Generate the SSH keys in OpenSSH format (Tutorial: [Linux](#), [MacOS](#), [Windows](#))
 - Attach the public key (extension .pub)
- Usecase description: "Federated Learning & Data Privacy (Master UCA Data Science and AI)"

The account creation may require several days. A confirmation email is sent once the account is created.

2. Log in to the cluster once the account is created:

- `ssh username@nef-frontal.inria.fr`
- `ssh username@nef-devel.inria.fr`

You may want to transfer your own local file from computer to the cluster directory by:

- For Linux and MacOS: `scp localfile username@nef-frontal.inria.fr:~/`
- For Windows: `pscp localfile username@nef-frontal.inria.fr:~/`

3. Reserve computing resources in the cluster and log into the reserved node:

- `oarsub -l /nodes=1/core=2, walltime=1 -I` (reserve 2 CPU cores from 1 node for 1 hour)
- [More variants for the commands](#)
- [Hardware details of the cluster](#)

4. Get Pytorch prepared: [multiple ways](#), recommend Method 3.

To check if Pytorch is well installed, type from the terminal:

- `python`
- `import torch`
- `print(torch.__version__)`
- `print(torch.version.cuda)`
- `print(torch.backends.cudnn.version())`

If you have any question, please contact me: angelo.rodio@inria.fr.