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**mlspace**

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MLSpace is a no-hassle tool for data science, machine learning and deep learning.

MLSpace has pre-made environments for pytorch, tensorflow and everything else you might need. All environments come with VSCode (code-server) and JupyterLab. You no longer need to care about CUDA/cuDNN versions!

**Setting up MLSpace is a three step process:**

- installation
- set up
- create and run environments

```
$ mlspace --help

usage: mlspace <command> [<args>]

positional arguments:
{create,setup,start,stop}
      create           Create a new MLSpace
      setup            Setup MLSpace and install all dependencies. Run with `sudo`
      start            Start a new space
      stop             Stop a running MLSpace instance

optional arguments:
-h, --help            show this help message and exit
--version, -v         Display MLSpace version

For more information about a command, run: `mlspace <command> --help`
```



## INSTALLATION

There are multiple ways to install MLSpace. Easiest is if you have *python* and *pip* installed.

If you already have *python* & *pip* installed on your system, you can just do:

```
$ pip install -U mlspace
```

If you do not have *python* and *pip* installed on your system, the first step would be to install them.

```
$ sudo apt-get update  
$ sudo apt-get install -y python3 python3-pip
```

If you have multiple versions of python installed, you might want to update alternatives and point *python* command to a particular version.

NOTE: MLSpace will work with any python  $\geq 3.5$ !

Once *python* & *pip* are installed, you can now install *mlspace* using:

```
$ pip install -U mlspace
```





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## CHAPTER TWO

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### SETUP

To start the setup process run:

```
$ mlspac setup
```

Sit back, relax and let it install everything you will need :)



## CREATING AN ENVIRONMENT

An environment can be created using the *mlspace create* command.

For example, you can create a *torch* environment without GPU using:

```
$ mlspace create --name name_of_your_env --backend torch
```

and if you want to create an environment with GPU support, just add *--gpu* to the create command.

```
$ mlspace create --name name_of_your_env --backend torch --gpu
```

At any point, you can get help for a command using *--help*. E.g.

```
$ mlspace create --help

usage: mlspace <command> [<args>] create [-h] --name NAME --backend {torch} [--gpu]

optional arguments:
-h, --help            show this help message and exit
--name NAME           Name of MLSpace
--backend {torch}     MLSpace backend
--gpu                 Whether to use GPU
```



## **RUNNING AN ENVIRONMENT**