

Installation

System requirements

auto-sklearn has the following system requirements:

- Linux operating system (for example Ubuntu) ([get Linux here](#))
- Python (≥ 3.7) ([get Python here](#)),
- C++ compiler (with C++11 supports) ([get GCC here](#)).

In case you try to install Auto-sklearn on a system where no wheel files for the pyrfr package are provided (see [here](#) for available wheels) you also need:

- SWIG ([get SWIG here](#)).

For an explanation of missing Microsoft Windows and MAC OSX support please check the Section [Windows/OSX compatibility](#).

Installing auto-sklearn

You can install *auto-sklearn* with *pip* in the usual manner:

```
pip3 install auto-sklearn
```

We recommend installing *auto-sklearn* into a [virtual environment](#) or an [Anaconda environment](#).

If the pip3 installation command fails, make sure you have the [System requirements](#) installed correctly.

Ubuntu installation

To provide Python 3, a C++11 building environment and the latest SWIG version on Ubuntu, run:

```
sudo apt-get install build-essential swig python3-dev
```

Anaconda installation

You need to enable conda-forge to install *auto-sklearn* via anaconda. This section explains how to enable conda-forge so installation can be done with the command *conda install*

auto-sklearn. Optionally, you can also install *auto-sklearn* with *pip* as detailed in the Section [Installing auto-sklearn](#).

A common installation problem under recent Linux distribution is the incompatibility of the compiler version used to compile the Python binary shipped by AnaConda and the compiler installed by the distribution. This can be solved by installing the *gcc* compiler shipped with AnaConda (as well as *swig*):

```
conda install gxx_linux-64 gcc_linux-64 swig
```

Conda-forge

Installing *auto-sklearn* from the *conda-forge* channel can be achieved by adding *conda-forge* to your channels with:

```
conda config --add channels conda-forge
```

```
conda config --set channel_priority strict
```

You must have *conda* ≥ 4.9 . To update *conda* or check your current *conda* version, please follow the instructions from [the official anaconda documentation](#) . Once the *conda-forge* channel has been enabled, *auto-sklearn* can be installed with:

```
conda install auto-sklearn
```

It is possible to list all of the versions of *auto-sklearn* available on your platform with:

```
conda search auto-sklearn --channel conda-forge
```

to read in more details check [auto sklearn feedstock](#).

for more information about Conda forge check [conda-forge documentations](#).

Windows/OSX compatibility

Windows

auto-sklearn relies heavily on the Python module resource. resource is part of Python's [Unix Specific Services](#) and not available on a Windows machine. Therefore, it is not possible to run *auto-sklearn* on a Windows machine.

Possible solutions:

- Windows 10 bash shell (see [431](#) and [860](#) for suggestions)
- virtual machine
- docker image

Mac OSX

We currently do not know if *auto-sklearn* works on OSX. There are at least two issues holding us back from actively supporting OSX:

- The resource module cannot enforce a memory limit on a Python process (see [SMAC3/issues/115](#)).
- Not all dependencies we are using are set up to work on OSX.

In case you're having issues installing the [pyrfr package](#), check out [this installation suggestion on github](#).

Possible other:

- virtual machine
- docker image

Docker Image

A Docker image is also provided on dockerhub. To download from dockerhub, use:

```
docker pull mfeurer/auto-sklearn:master
```

You can also verify that the image was downloaded via:

```
docker images # Verify that the image was downloaded
```

This image can be used to start an interactive session as follows:

```
docker run -it mfeurer/auto-sklearn:master
```

To start a Jupyter notebook, you could instead run e.g.:

```
docker run -it -v ${PWD}:/opt/nb -p 8888:8888 mfeurer/auto-
```

```
sklearn:master /bin/bash -c "mkdir -p /opt/nb && jupyter notebook  
--notebook-dir=/opt/nb --ip='0.0.0.0' --port=8888 --no-browser --  
allow-root"
```

Alternatively, it is possible to use the development version of auto-sklearn by replacing all occurrences of master by development.