

install_module

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1 Ways to install a module

Install a module from a notebook.

```
[1]: from jupyterlab import add_notebook_menu
      add_notebook_menu()
```

```
[1]: <IPython.core.display.HTML object>
```

The module [pymyinstall](#) proposes an easy to install module mostly on Windows as it is already quite easy to do it on Linux/Mac through [pip](#). There are a couple of ways to install a module and they should be tried in that way:

- **pip**: pip
- **wheel**: use also pip but on Windows, it will fetch the wheel file from the location mentioned below (Unofficial...)
- **github**: source (usually from [github](#)), the owner of the source must be specified

Old way which should not be used anymore:

- **exe**: a setup on Windows (only on Windows), replaced by pip in Linux/Max
- **exe_xd**: only for Windows, some setups gathered on my website

[pip](#) is great because it deals with dependencies for you. I recommend to use Python 3.4 because that is the first version which includes [pip](#). It takes the modules from [PyPI](#). The only drawback happens on Windows when a module includes [Fortran/C/C++](#) files which must be compiled. As opposed to Linux or Mac with [gcc](#), there is not an official compiler to handle every package and it has to be installed first. On Windows, it can be done by installing [Visual Studio Express 2010](#) but sometimes, the dependencies can be tricky. That's why it is recommended to install already compiled python extensions. Not every module provides a compiled version but there exists two main ways to get them:

- [Unofficial Windows Binaries for Python Extension Packages](#)
- [Anaconda](#)

[pymysintall](#) takes the setup from the first source. The following snippets of code gives an example for each described way to install a module. The setup way only works on Windows.

1.0.1 pip

Let's try with the following module: [numbers_extractor](#).

```
[2]: from pymyinstall import ModuleInstall
```

The following only works if you have enough permissions to do it which is the case if the notebook server is started with admin permissions or if you are using a virtual environment.

```
[3]: ModuleInstall("numbers_extractor", "pip").install()
```

```
installation of numbers_extractor:pip:import numbers_extractor
```

```
[3]: True
```

1.0.2 wheel (for files *.whl)

```
[4]: ModuleInstall("numpy", "wheel").install()
```

```
[4]: True
```

The function checks first if the module was already installed. That's why it displays only True. All modules are not available at [Unofficial Windows Binaries for Python Extension Packages](#) such as `xgboost`. For this one, `wheel` must be replaced by `wheel2`. The wheel file will be picked from [xavierdupre.fr](#).

1.0.3 github

`github` holds the source of most of the open source project. This one is no exception. You can check this page for example [Top 400 Python Projects in Github](#). We try here with the module `bottle`.

```
[5]: ModuleInstall("bottle", "github", "defnull").install()
```

```
installation of bottle:github:import bottle
downloading https://github.com/defnull/bottle/archive/master.zip
unzipping .\bottle.zip
creating folder .\bottle-master
unzipped bottle-master/.coveragerc to .\bottle-master/.coveragerc
unzipped bottle-master/.gitignore to .\bottle-master/.gitignore
unzipped bottle-master/.travis.yml to .\bottle-master/.travis.yml
unzipped bottle-master/AUTHORS to .\bottle-master/AUTHORS
unzipped bottle-master/LICENSE to .\bottle-master/LICENSE
unzipped bottle-master/MANIFEST.in to .\bottle-master/MANIFEST.in
unzipped bottle-master/Makefile to .\bottle-master/Makefile
unzipped bottle-master/README.rst to .\bottle-master/README.rst
unzipped bottle-master/bottle.py to .\bottle-master/bottle.py
creating folder .\bottle-master/docs
creating folder .\bottle-master/docs/_locale
unzipped bottle-master/docs/_locale/README.txt to .\bottle-
master/docs/_locale/README.txt
unzipped bottle-master/docs/_locale/update.sh to .\bottle-
master/docs/_locale/update.sh
creating folder .\bottle-master/docs/_locale/zh_CN
unzipped bottle-master/docs/_locale/zh_CN/api.po to .\bottle-
master/docs/_locale/zh_CN/api.po
unzipped bottle-master/docs/_locale/zh_CN/async.po to .\bottle-
master/docs/_locale/zh_CN/async.po
unzipped bottle-master/docs/_locale/zh_CN/changelog.po to .\bottle-
master/docs/_locale/zh_CN/changelog.po
unzipped bottle-master/docs/_locale/zh_CN/configuration.po to .\bottle-
master/docs/_locale/zh_CN/configuration.po
unzipped bottle-master/docs/_locale/zh_CN/contact.po to .\bottle-
master/docs/_locale/zh_CN/contact.po
```

```

unzipped bottle-master/docs/_locale/zh_CN/deployment.po to .\bottle-
master/docs/_locale/zh_CN/deployment.po
unzipped bottle-master/docs/_locale/zh_CN/development.po to .\bottle-
master/docs/_locale/zh_CN/development.po
unzipped bottle-master/docs/_locale/zh_CN/faq.po to .\bottle-
master/docs/_locale/zh_CN/faq.po
unzipped bottle-master/docs/_locale/zh_CN/index.po to .\bottle-
master/docs/_locale/zh_CN/index.po
unzipped bottle-master/docs/_locale/zh_CN/plugindev.po to .\bottle-
master/docs/_locale/zh_CN/plugindev.po
unzipped bottle-master/docs/_locale/zh_CN/plugins.po to .\bottle-
master/docs/_locale/zh_CN/plugins.po
unzipped bottle-master/docs/_locale/zh_CN/recipes.po to .\bottle-
master/docs/_locale/zh_CN/recipes.po
unzipped bottle-master/docs/_locale/zh_CN/routing.po to .\bottle-
master/docs/_locale/zh_CN/routing.po
unzipped bottle-master/docs/_locale/zh_CN/stpl.po to .\bottle-
master/docs/_locale/zh_CN/stpl.po
unzipped bottle-master/docs/_locale/zh_CN/tutorial.po to .\bottle-
master/docs/_locale/zh_CN/tutorial.po
unzipped bottle-master/docs/_locale/zh_CN/tutorial_app.po to .\bottle-
master/docs/_locale/zh_CN/tutorial_app.po
unzipped bottle-master/docs/api.rst to .\bottle-master/docs/api.rst
unzipped bottle-master/docs/async.rst to .\bottle-master/docs/async.rst
unzipped bottle-master/docs/changelog.rst to .\bottle-
master/docs/changelog.rst
unzipped bottle-master/docs/conf.py to .\bottle-master/docs/conf.py
unzipped bottle-master/docs/configuration.rst to .\bottle-
master/docs/configuration.rst
unzipped bottle-master/docs/contact.rst to .\bottle-
master/docs/contact.rst
unzipped bottle-master/docs/deployment.rst to .\bottle-
master/docs/deployment.rst
unzipped bottle-master/docs/development.rst to .\bottle-
master/docs/development.rst
unzipped bottle-master/docs/faq.rst to .\bottle-master/docs/faq.rst
unzipped bottle-master/docs/index.rst to .\bottle-master/docs/index.rst
unzipped bottle-master/docs/plugindev.rst to .\bottle-
master/docs/plugindev.rst
creating folder .\bottle-master/docs/plugins
unzipped bottle-master/docs/plugins/index.rst to .\bottle-
master/docs/plugins/index.rst
unzipped bottle-master/docs/recipes.rst to .\bottle-
master/docs/recipes.rst
unzipped bottle-master/docs/routing.rst to .\bottle-
master/docs/routing.rst
unzipped bottle-master/docs/stpl.rst to .\bottle-master/docs/stpl.rst
unzipped bottle-master/docs/tutorial.rst to .\bottle-
master/docs/tutorial.rst
unzipped bottle-master/docs/tutorial_app.rst to .\bottle-
master/docs/tutorial_app.rst
unzipped bottle-master/setup.cfg to .\bottle-master/setup.cfg
unzipped bottle-master/setup.py to .\bottle-master/setup.py
creating folder .\bottle-master/test

```

```

unzipped bottle-master/test/.coveragerc to .\bottle-
master/test/.coveragerc
unzipped bottle-master/test/build_python.sh to .\bottle-
master/test/build_python.sh
unzipped bottle-master/test/servertest.py to .\bottle-
master/test/servertest.py
unzipped bottle-master/test/test_auth.py to .\bottle-
master/test/test_auth.py
unzipped bottle-master/test/test_config.py to .\bottle-
master/test/test_config.py
unzipped bottle-master/test/test_configdict.py to .\bottle-
master/test/test_configdict.py
unzipped bottle-master/test/test_contextlocals.py to .\bottle-
master/test/test_contextlocals.py
unzipped bottle-master/test/test_environ.py to .\bottle-
master/test/test_environ.py
unzipped bottle-master/test/test_fileupload.py to .\bottle-
master/test/test_fileupload.py
unzipped bottle-master/test/test_formsdict.py to .\bottle-
master/test/test_formsdict.py
unzipped bottle-master/test/test_importhook.py to .\bottle-
master/test/test_importhook.py
unzipped bottle-master/test/test_jinja2.py to .\bottle-
master/test/test_jinja2.py
unzipped bottle-master/test/test_mako.py to .\bottle-
master/test/test_mako.py
unzipped bottle-master/test/test_mdict.py to .\bottle-
master/test/test_mdict.py
unzipped bottle-master/test/test_mount.py to .\bottle-
master/test/test_mount.py
unzipped bottle-master/test/test_outputfilter.py to .\bottle-
master/test/test_outputfilter.py
unzipped bottle-master/test/test_plugins.py to .\bottle-
master/test/test_plugins.py
unzipped bottle-master/test/test_resources.py to .\bottle-
master/test/test_resources.py
unzipped bottle-master/test/test_route.py to .\bottle-
master/test/test_route.py
unzipped bottle-master/test/test_router.py to .\bottle-
master/test/test_router.py
unzipped bottle-master/test/test_securecookies.py to .\bottle-
master/test/test_securecookies.py
unzipped bottle-master/test/test_sendfile.py to .\bottle-
master/test/test_sendfile.py
unzipped bottle-master/test/test_server.py to .\bottle-
master/test/test_server.py
unzipped bottle-master/test/test_stpl.py to .\bottle-
master/test/test_stpl.py
unzipped bottle-master/test/test_wsgi.py to .\bottle-
master/test/test_wsgi.py
unzipped bottle-master/test/testall.py to .\bottle-master/test/testall.py
unzipped bottle-master/test/tools.py to .\bottle-master/test/tools.py
unzipped bottle-master/test/travis-requirements.txt to .\bottle-
master/test/travis-requirements.txt

```

```

unzipped bottle-master/test/travis_setup.sh to .\bottle-
master/test/travis_setup.sh
creating folder .\bottle-master/test/views
unzipped bottle-master/test/views/jinja2_base.tpl to .\bottle-
master/test/views/jinja2_base.tpl
unzipped bottle-master/test/views/jinja2_inherit.tpl to .\bottle-
master/test/views/jinja2_inherit.tpl
unzipped bottle-master/test/views/jinja2_simple.tpl to .\bottle-
master/test/views/jinja2_simple.tpl
unzipped bottle-master/test/views/mako_base.tpl to .\bottle-
master/test/views/mako_base.tpl
unzipped bottle-master/test/views/mako_inherit.tpl to .\bottle-
master/test/views/mako_inherit.tpl
unzipped bottle-master/test/views/mako_simple.tpl to .\bottle-
master/test/views/mako_simple.tpl
unzipped bottle-master/test/views/stpl_include.tpl to .\bottle-
master/test/views/stpl_include.tpl
unzipped bottle-master/test/views/stpl_no_vars.tpl to .\bottle-
master/test/views/stpl_no_vars.tpl
unzipped bottle-master/test/views/stpl_simple.tpl to .\bottle-
master/test/views/stpl_simple.tpl
unzipped bottle-master/test/views/stpl_t2base.tpl to .\bottle-
master/test/views/stpl_t2base.tpl
unzipped bottle-master/test/views/stpl_t2inc.tpl to .\bottle-
master/test/views/stpl_t2inc.tpl
unzipped bottle-master/test/views/stpl_t2main.tpl to .\bottle-
master/test/views/stpl_t2main.tpl
unzipped bottle-master/test/views/stpl_unicode.tpl to .\bottle-
master/test/views/stpl_unicode.tpl
unzipped bottle-master/tox.ini to .\bottle-master/tox.ini
install C
warning: Successfully installed not found

```

[5]: True

The function downloads the source from GitHub and install them using the instruction `python setup.py install`. The function still has to be improved because analyzing the output is always obvious if there are dependencies or error messages. We check again a second call does not install the module again.

```
[6]: ModuleInstall("bottle", "github", "defnull").install()
```

```

installation of bottle:github:import bottle
unzipping .\bottle.zip
install C
warning: Successfully installed not found

```

[6]: True

We finally check the module can be imported. It sometimes requires the kernel to restarted.

```
[7]: import bottle
```

The two previous methods download files and create others when some file needs to be uncompressed.

```
[8]: import os
      os.listdir(".")
```

```
[8]: ['bottle-master',
      'bottle.zip',
      'install_module.ipynb',
      'python-snappy-0.5.win32-py3.4.exe']
```

```
[9]:
```