

ProgrammerSought



Install Cholmod and Scikit-sparse under Windows

tags: [development tools](#) [cmake](#) [sparse coding](#)

First, introduce

Use the command under Windows

```
1 | pip install scikit-sparse
```

installation [scikit-sparse](#) I can't install it at all, I can only handle it online online.

Second, manual installation

reference:<https://github.com/xmlyqing00/Cholmod-Scikit-Sparse-Windows>

2.1 Compile Cholmod

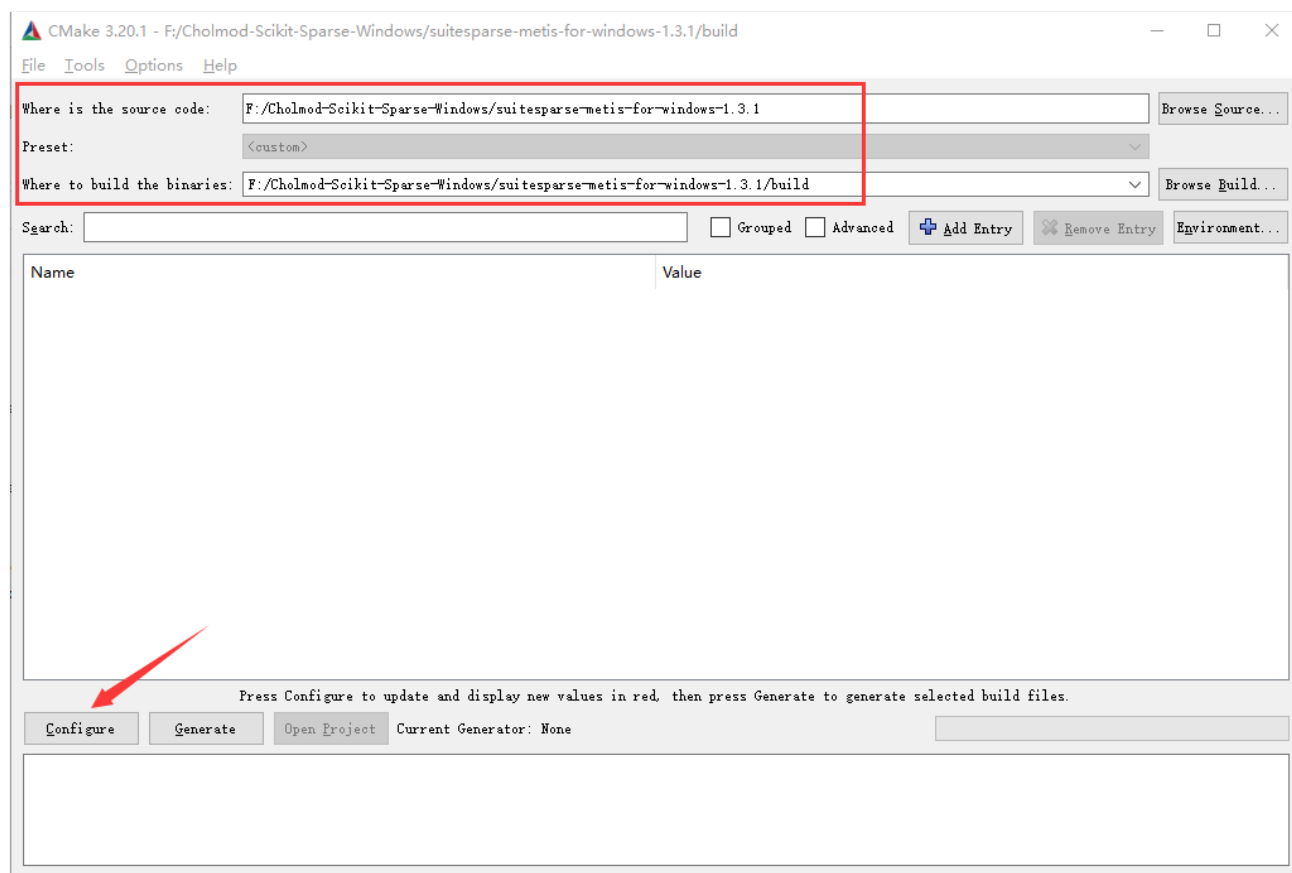
1. Download and install CMAK first firstOfficial website,[CMAKE_3.20.1_X64 installation package](#))
2. Use the following command to pull source code

```
1 | git clone https://github.com/xmlyqing00/Cholmod-Scikit-Sparse-Windows.git
```

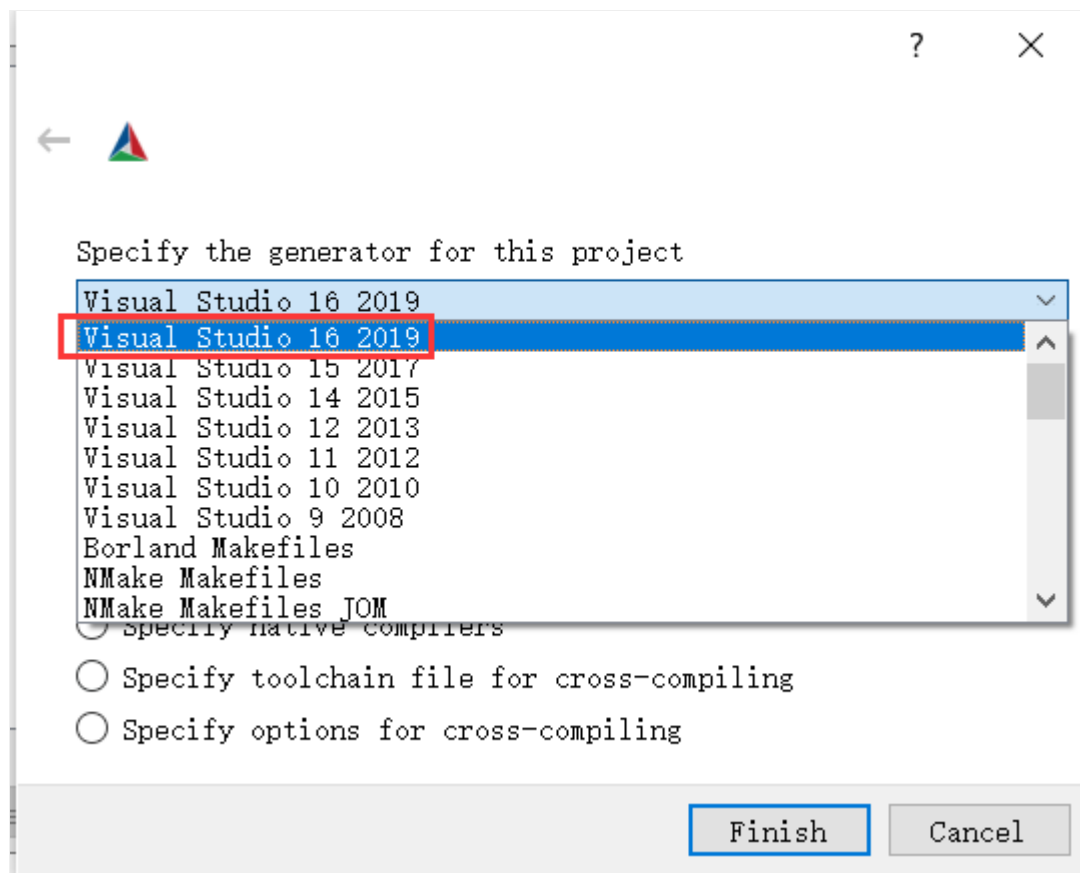
After the download is complete [Cholmod-Scikit-Sparse-Windows/suitesparse-metis-for-windows-1.3.1](#) Newly built under the directory [build](#) Directory for placing compilation files.

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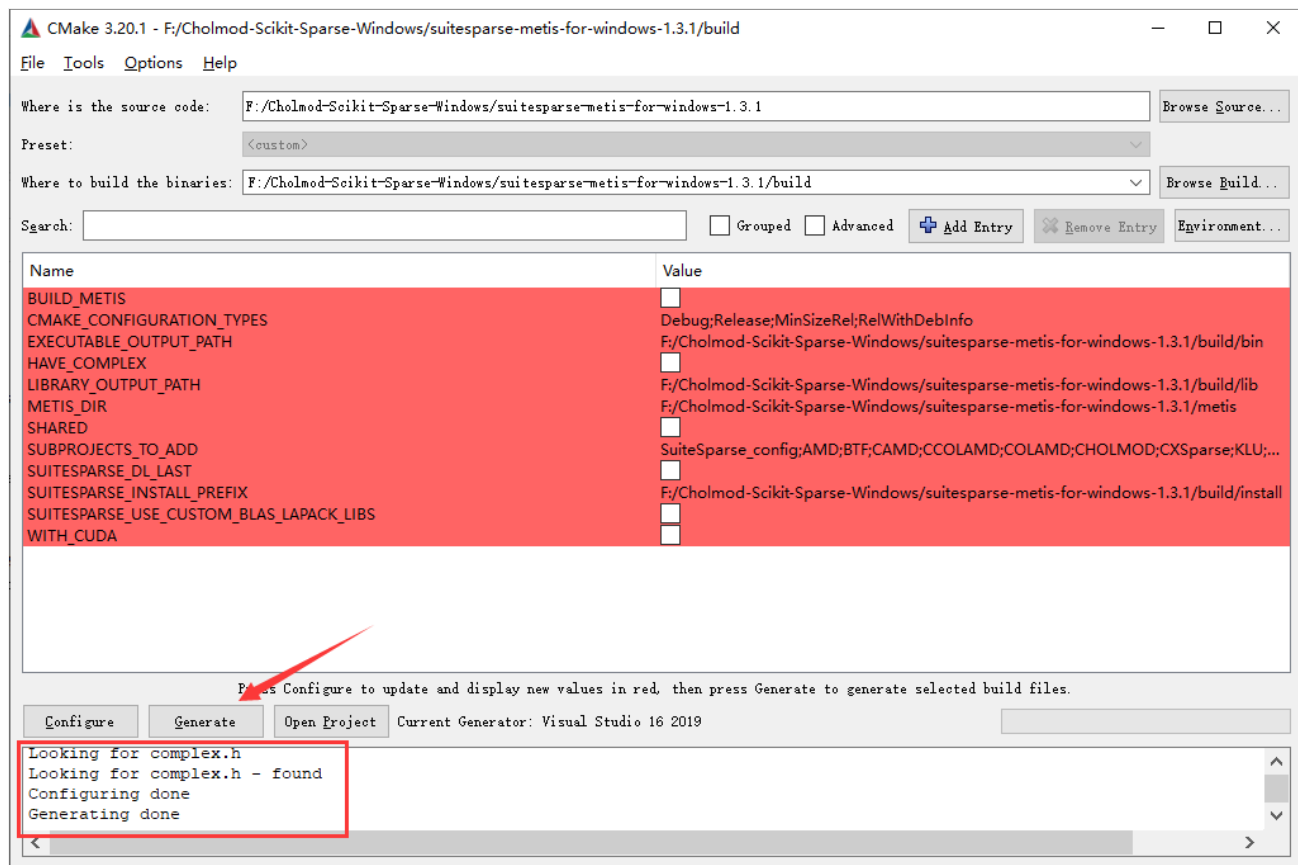
- Open installation **CMake (cmake-gui)** Icon, select the source file directory, and compile file directory (**Directory does not have Chinese**).



- Click **Configure** Button, select the installed Visual Studio environment (**I installed VS2019 here, so I chose the first one**)

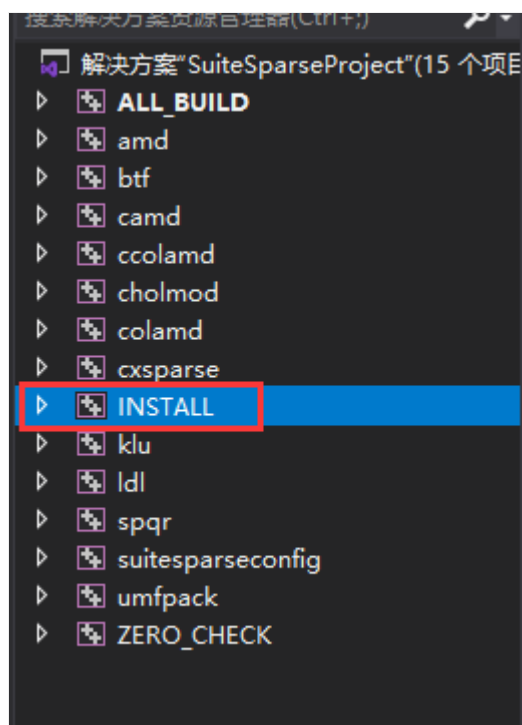


5. After selecting, the area in the red box will be made automatically, then click **Generate** generate.

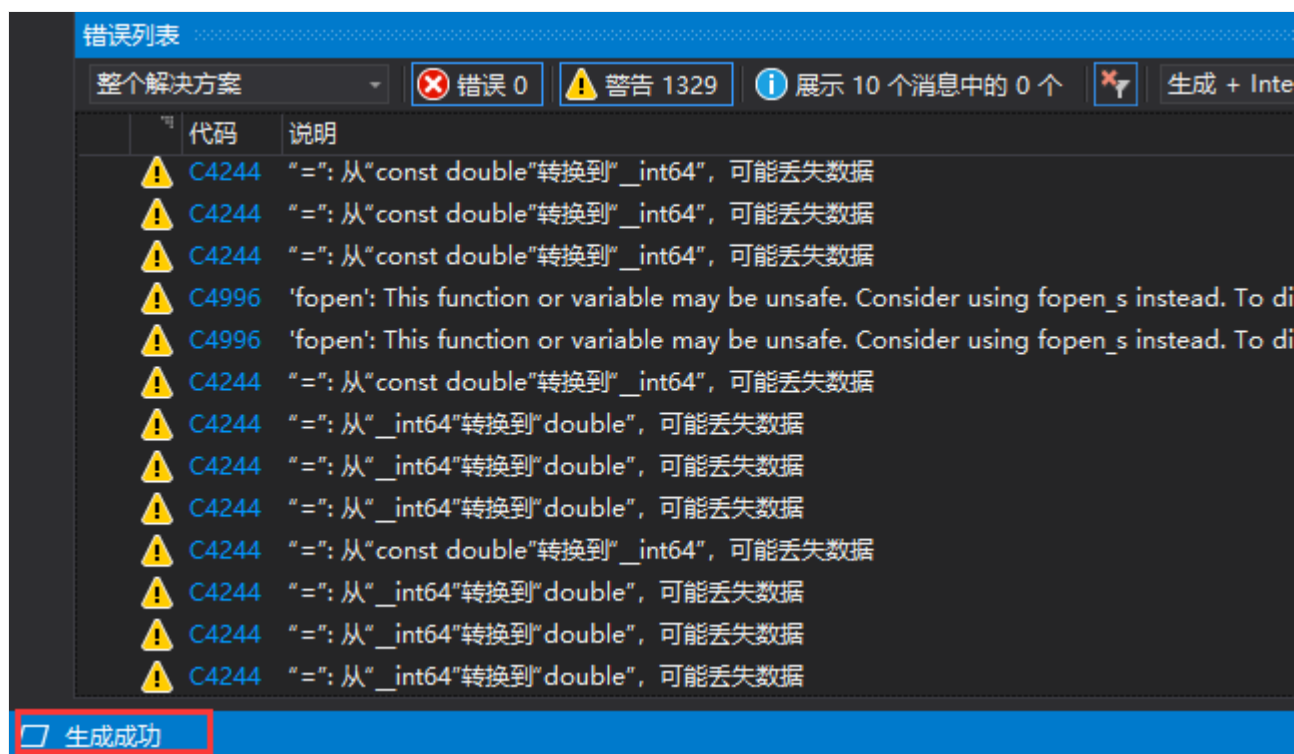


6. Then click **Open Project** Select Visual Studio Select Open Solution.

7. Select in the Visual Studio environment **Release mode**(Be sure to choose **Release mode**). Then compile **INSTALL** Module

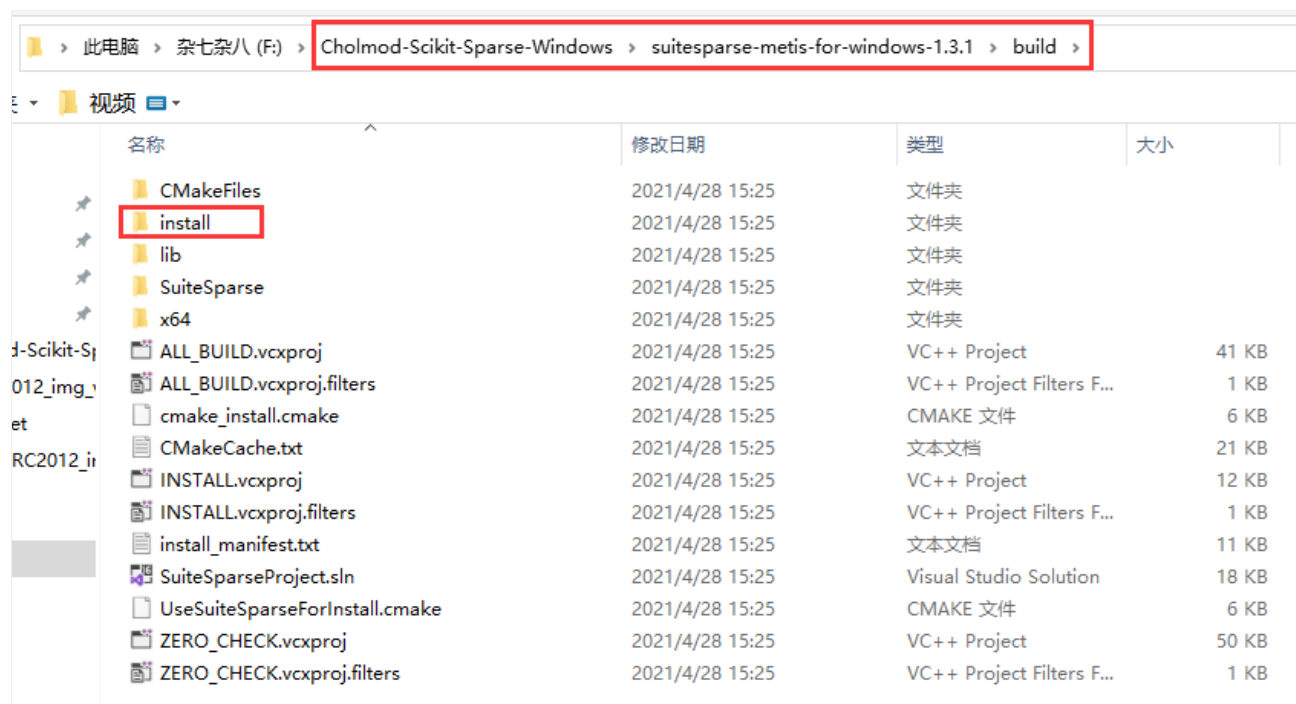


8. Waiting for its success



9. Now enter the compilation path we just set, compiled `install` Under the folder

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2.2 Compile SCIKIT-SPARSE

1. enter `Cholmod-Scikit-Sparse-Windows\scikit-sparse-0.4.4` Directory, open the PowerShell window here. Executing an order

```
1 | python setup.py build
```

Compile file.

```

PS F:\Cholmod-Scikit-Sparse-Windows\scikit-sparse-0.4.4> python.exe setup.py build
running build
running build_py
UPDATING build\lib.win-amd64-3.8\sksparse\_version.py
set build\lib.win-amd64-3.8\sksparse\_version.py to '0.4.4'
running build_ext
skipping 'sksparse\cholmod.c' Cython extension (up-to-date)
building 'sksparse.cholmod' extension
d:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\bin\HostX86\x64\cl.exe /c /nologo /Ox /W3 /GL /DNDEBUG /MD -ID:\Anaconda3\lib\site-packages\numpy\core\include -I../suitesparse-metis-for-windows-1.3.1/build/install/include/suitesparse -ID:\Anaconda3\include -I/usr/include/suitesparse -ID:\Anaconda3\include -ID:\Anaconda3\include -Id:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\ATLMFC\include -Id:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\include -Id:\Windows Kits\10\include\10.0.18362.0\ucrt -Id:\Windows Kits\10\include\10.0.18362.0\shared -Id:\Windows Kits\10\include\10.0.18362.0\um -Id:\Windows Kits\10\include\10.0.18362.0\winrt -Id:\Windows Kits\10\include\10.0.18362.0\cppwinrt /Tcsksparse\cholmod.c /Fobuild\temp.win-amd64-3.8\Release\sksparse\cholmod.obj
cholmod.c
D:\Anaconda3\lib\site-packages\numpy\core\include\numpy\numpy_1_7_deprecated_api.h(14) : Warning Msg: Using deprecated NumPy API, disable it with #define NPY_NO_DEPRECATED_API NPY_1_7_API_VERSION
d:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\bin\HostX86\x64\link.exe /nologo /INCREMENTAL:NO /LTCG /DLL /MANIFEST:EMBED,ID=2 /MANIFESTUAC:NO /LIBPATH:../suitesparse-metis-for-windows-1.3.1/build/install/lib64 /LIBPATH:../suitesparse-metis-for-windows-1.3.1/build/install/lib64/lapack_blas_windows /LIBPATH:D:\Anaconda3\libs /LIBPATH:D:\Anaconda3\PCbuild\amd64 /LIBPATH:d:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\ATLMFC\lib\x64 /LIBPATH:d:\Microsoft Visual Studio\2019\Enterprise\VC\Tools\MSVC\14.28.29333\lib\x64 /LIBPATH:D:\Windows Kits\10\lib\10.0.18362.0\ucrt\x64 /LIBPATH:D:\Windows Kits\10\lib\10.0.18362.0\um\x64 cholmod.lib amd.lib btf.lib camd.lib ccolamd.lib colamd.lib cxsparse.lib klu.lib ldl.lib spqr.lib suitesparseconfig.lib umfpack.lib libblas.lib liblapack.lib /EXPORT:PyInit_cholmod build\temp.win-amd64-3.8\Release\sksparse\cholmod.obj /OUT:build\lib.win-amd64-3.8\sksparse\cholmod.cp38-win_amd64.pyd /IMPLIB:build\temp.win-amd64-3.8\Release\sksparse\cholmod.cp38-win_amd64.lib
正在创建库 build\temp.win-amd64-3.8\Release\sksparse\cholmod.cp38-win_amd64.lib 和对象 build\temp.win-amd64-3.8\Release\sksparse\cholmod.cp38-win_amd64.exp
正在生成代码
已完成代码的生成
PS F:\Cholmod-Scikit-Sparse-Windows\scikit-sparse-0.4.4>

```

2. Use command

1 | python setup.py install

Install the file, the last few lines are installed as shown below.

```

Installed d:\anaconda3\lib\site-packages\scikit_sparse-0.4.4-py3.8-win-amd64.egg
Processing dependencies for scikit-sparse==0.4.4
Searching for scipy==1.5.0
Best match: scipy 1.5.0
Adding scipy 1.5.0 to easy-install.pth file

Using d:\anaconda3\lib\site-packages
Searching for numpy==1.19.4
Best match: numpy 1.19.4
Adding numpy 1.19.4 to easy-install.pth file
Installing f2py-script.py script to D:\Anaconda3\Scripts
Installing f2py.exe script to D:\Anaconda3\Scripts

Using d:\anaconda3\lib\site-packages
Finished processing dependencies for scikit-sparse==0.4.4
PS F:\Cholmod-Scikit-Sparse-Windows\scikit-sparse-0.4.4>

```

2.3 test

input the command

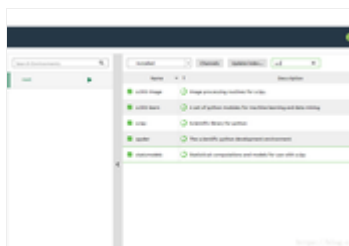
```
1 | from sksparse.cholmod import cholesky
```

If you don't report an error, the installation is complete.

```
C:\Users\Lenovo>python
Python 3.8.3 (default, Jul 2 2020, 17:30:36) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> from sksparse.cholmod import cholesky
>>>
```

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Intelligent Recommendation



Doubts about scikit learn of machine learning library (please skip it) Attachment: link to install sklearn under Windows

To be honest, the boss asked to learn machine learning. One of the hottest libraries for machine learning is scikit learn, but I don't know what it is. Learn it slowly. QT1: Some nonsense here. ...

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