Protocol for installing SVM environment

Note: This SVM is based on python 2.7. You will need to install anaconda and the compatible toolkits before running the SVM. This protocol should work well for ios system

1. Download anaconda: <https://www.anaconda.com/> ; Install anaconda following the instruction.
2. Restart your mac.
3. Open a terminal.
4. If your mac is using -csh, instead of -zsh, you should set up the -zsh by entering ‘exec bash -login’
5. Check conda installation: type ‘conda’. This should tell you if your mac has anaconda installed correctly.
6. Create AMP SVM environment, by typing ‘conda create -n AMPenv\_SVM python=2.7 scikit-learn=0.16.1 numpy scipy matplotlib’. However, my mac found scikit-learn=0.16.1 is not supported. So, I have to install this separately. So instead of typing the full length of the code. I removed scikit-learn=0.16.1 and type ‘conda create -n AMPenv\_SVM python=2.7 numpy scipy matplotlib’
7. Conda can’t find scikit-learn=0.16.1, as this was written in python 2.7. So we need to use pip.
8. Python 2.7 need Download ‘get-pip.py’ by myself, so type ‘curl http://bootstrap.pypa.io/pip/2.7/get-pip.py -o get-pip.py’

[curl](https://so.csdn.net/so/search?q=curl&spm=1001.2101.3001.7020) https://bootstrap.pypa.io/pip/2.7/get-pip.py -o get-pip.py

1. To work pip, type ‘sudo python get-pip.py’
   1. check pip version: python -m pip -version (check the address of the old version)

however, type ‘pip -V’ to check version of pip

* 1. use pip to install scikit-learn=0.16.1: ‘pip install scikit-learn==0.16.1’

1. Conda didn’t recognize propy. So we need to setup the propy. Go to the propy folder from the terminal. Run ‘python setup.py install’. (propy is used to generate the descriptors)
2. Check all the installed packages in conda, type ‘conda list’

conda create -n AMPenv\_SVM python=2.7 numpy scipy matplotlib scikit-learn=0.16.1 -y

conda activate AMPenv\_SVM

address ‘no module named sklearn’

1. turn off terminal
2. If your mac is using -csh, instead of -zsh, you should set up the -zsh by entering ‘exec bash -login’
3. Type ‘conda deactivate’ to (base)
4. Type ‘Python -V’ to check version of Python
5. Type ‘conda activate AMPenv\_SVM’
6. Type ‘conda deactivate’ to (AMPenv\_SVM)
7. If there are the versions of Python are same, plz go back step 3, and type ‘conda deactivate’ again, then type ‘Python -V’ to check version of Python.
8. Type ‘conda activate AMPenv\_SVM’

conda config --add channels https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkgs/free/

conda config --add channels https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud/conda-forge

conda config --add channels https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud/msys2/

# 设置搜索时显示通道地址

conda config --set show\_channel\_urls yes

run AMP classifier:

1. Locate the folder: ‘cd /Users/mac/Documents/Molly/PhD/Helical/Helical\_AMPsSVM\_v3/predictions/test\_Single\_WindowScan’
2. (optional) check folder content: ‘ls’
3. Activate SVM environment: ‘conda activate AMPenv\_SVM’ note: the name of the environment can be other customized name, ‘conda info --envs’s
4. ‘chmod +x ./bash\_run.sh’
5. ‘./bash\_run.sh’ or ‘bash bash\_run.sh’

exec bash -login

cd /Users/mac/Documents/Molly/PhD/Helical/Helical\_AMPsSVM\_v3/predictions/Test\_list\_Protein

ls

optioal:

conda info --envs

conda activate AMPenv\_SVM

chmod +x ./bash\_csv.sh

./bash\_csv.sh

‘cd /Users/mac/Documents/Molly/PhD/Helical/Helical\_AMPsSVM\_v3/predictions/Test\_list\_sequences’