

[Update: Friday 15 August 17:00]

Hi everyone!

On Tuesday you will have a practical session regarding RBMs. We will use the Shark software library throughout the session and it is therefore required to install it.

The package itself is located at the homepage of the summer school and you need to compile it. This requires a bit of preparation, which should be easy.

### Installing Shark:

#### A. *linux/mac*

1. install a recent version of boost. Version 1.48 or higher is required. Use either apt-get on debian/ubuntu or macports/-brew(  
<http://stackoverflow.com/questions/104322/how-do-you-install-boost-on-macos> ) on mac. Windows user might need to do the manual install or find a download for the full package.
2. same with cmake (and a suitable C++ compiler (g++/clang) as well as make. This should be available on most systems)
3. unpack SharkRBM.zip and open the Shark/ folder
4. enter:
  - a. cmake .
  - b. make -j4 (assuming 4 threads are okay, otherwise change to 2 or 1...)
  - c. sudo make install

This will install shark by default into a system directory (most likely /usr/local/). In case you don't want this, but instead install to some /path/to/shark, use the following:

1. cmake -DCMAKE\_INSTALL\_PREFIX=/path/to/shark .
2. make -j4
3. sudo make install
5. Compiling the programs:  
open folder code/
  1. cmake -DShark\_DIR=/path/to/Shark/lib/CMake/Shark .  
(default: cmake -DShark\_DIR=/usr/local/lib/CMake/Shark .)
  2. makewhich leaves 3 binaries to start.

#### B: *Windows (+cygwin)*

1. install cygwin  
<https://cygwin.com/install.html>

when running the installer you are prompted for selecting packages to install. you have to search and activate:

- make
- cmake
- gcc-g++
- boost

this can take a few minutes to download and install.

2. installing shark

- a. unpack SharkRBM.zip inside the cygwin installation (C:/cygwin/home/Username/)
- b. open the Shark/ folder inside the cygwin terminal
- c. `cmake -DCMAKE_LEGACY_CYGWIN_WIN32=1 -DCMAKE_INSTALL_PREFIX=/usr/ .`
- d. `make -j4`
- e. `make install`

3. Compiling the programs:

- a. open folder code/
- b. `cmake -DCMAKE_LEGACY_CYGWIN_WIN32=1 .`
- c. `make`