

Homework #2

MATLAB/Programming

In programming, we typically want to avoid reinventing the wheel. Excellent software implementing algorithms useful to our research have been developed and optimized to make our life easier, so we should make use of those packages. The benefit is saving of many hours debugging and optimizing our implementations.

The purpose of this homework is to become familiar with installing additional libraries in MATLAB. A useful package implementing support vector machine (SVM), a classification algorithm that will be used in future seminars, is libsvm (<http://www.csie.ntu.edu.tw/~cjlin/libsvm/>). In this homework you will:

- Download libsvm
- Compile and install the library for MATLAB
 - Look up 'path' and setting the path to include necessary directories
- Run some tests such as calling the function to make sure it installed properly. Calling the function without arguments will return help

Notes on compiling/Installation:

- Follow the README instructions in the MATLAB folder to make sure you are doing the right thing. Also see main README for reference.
- Windows users are at a disadvantage, since you do not have a C++ compiler built in. Therefore, you should install Visual C++ express 2012 (<http://www.microsoft.com/visualstudio/eng/downloads#d-express-windows-desktop>) and set up that compiler with MATLAB.
- OSX/Linux users, c++ compiler already installed, but you may need to use the terminal. (Linux: Applications/Accessories/Terminal)(OSX: /Applications/Utilities/Terminal)
- There are some pre-compiled libraries, but do not use those. I want you to learn how to compile them and make that thing work on your machine's architecture in case the software developers aren't so nice in the future.

Please let me know if you were successful/having trouble, and what kind of system you are using (Operating system, and 32/64 bit)

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